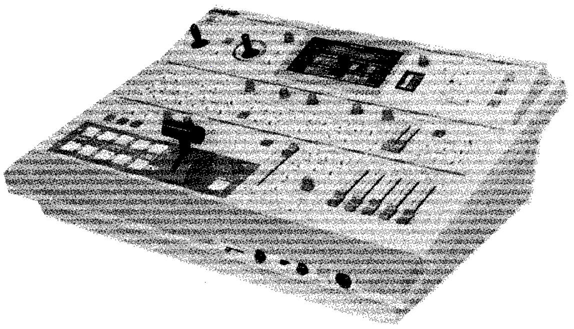
ORDER NO.AVS9803033C8

Service Manual

Production Mixer

WJ-MX50A

Simplified



Please file and use this Simplified Service manual together with the service manual for the Model No. WJ-MX50, order No.AVS9206582C2 and the suppliment sevice manual for Model No. WJ-MX50, order No. AVS9302659S8.

SPECIFICATIONS

Source Input :	×4 (SOURCE 1/2/3/4)
Composite Video Input :	1.0 Vp-p/75 Ohms, PAL signal, BNC ×4
S-Video Input :	Y signal; 1.0 Vp-p/75 Ohms, C signal; 0.3 Vp-p/75 Ohms, Mini DIN 4 connector×4
Audio Input :	SOURCE 1/2; XLR-type×2, +4 dBm/600 ohms (Balanced), Left and Right. SOURCE 3/4; Pin-jack×2, −6 dBs/20 Kohms (Unbalanced), Left and Right.
Auxliliary Audio Input :	×2 (Aux1/2) −6dBs/20 Kohms, Pin-jack (Unbalanced), Left and Right
Microphone Input :	−60 dBv/600 ohms, unbalanced, tip-ring-sleeve type phone jack×1
External Camera Input :	1.0 Vp-p/75 ohms, PAL compostie signal, BNC×1 Y signal; 1.0 Vp-p/75 ohms, C signal; 0.3 Vp-p/75 ohms, Mini DIN 4 connector×1
GPI Input :	Make-contact, BNC×1
Character (TITLE) Input :	10-pin connector x 1 for optional Character Generator WJ-KB30, WJ-KB50.
Program Output :	×2 (PROGRAM OUT 1/2)
Composite Video Output :	1.0 Vp-p/75 ohms PAL signal, BNC×2
S-Video Output :	Y signal; 1.0 Vp-p/75 ohms, C signal: 0.3 Vp-p/75 ohms, Mini DIN 4 connector×2
Audio Output :	PROGRAM OUT 1; XLR-type×1, +4dBs/47 ohms (Balanced), Left and Right. PROGRAM OUT 2; Pin-jack×1, −6dBs/47 ohms (Unbalanced), Left and Right.
Previw Output :	1.0 Vp-p/75 ohms, PAL composite signal, BNC×1.
Black Burst Output :	Sync 0.3 Vp-p/75 ohms, Burst 0.3 Vp-p/75 ohms PAL signal, BNC×1.
Advance Sync Output :	4 Vp-p/75 ohms, BNC×2
Advance Reference Output :	Sync 0.3 Vp-p/75 ohms, Burst 0.3 Vp-p/75 ohms, BNC×2
Headphone Output :	−20 dBv - −80 dBv, 8 ohms unbalanced, tip-ring-sleeve type phone jack×1.
Digital Effects :	Nega, Mosaic, Mono, Paint, Still, Strobe, Multi, Trail, A/V Synchro, Frame
Matte Colours :	Colour Bar, White, Yellow, Cyan, Green, Magenta, Red, Blue, Black.
Wipe Patterns :	287 Patterns
Joystick Control :	Positioner, Colour Correction.
Audio Mixer :	A-bus, B-bus, AUX-1, AUX-2, Mic, Master.

Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICEING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsuland voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.

This symbol alerts the user that impotant literature concerning the operation and maintenance of this has been included. Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are indicated by the ⚠ mark on the schematic diagram and the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards.
Do not modify the original design without permission of manufacture.

Others :	Audio-Follow, Auto-Take, Auto-Fade, Memory, Special Mode.
Video Sampling :	4 : 1 : 1, Y = 13.5 MHz, 8-bit component
Frequency Range :	Sync; 15.625 KHz±300 Hz SC; 4.433619 MHz±40 Hz
Frequency Responce :	Y/C signal; 4.5 MHz (at −3dB) Composite Video Signal; 4.5 MHz (at −3dB) Audio; 20 - 20 KHz (at −3 dB)
Gain :	Unity (Video)
S/N (Typical) :	56 dB (S-Video), 50 dB (Composite), 70dB (Audio at 1 KHz)
Differential Gain :	±5° (Composite)
Differential Phase :	±5 % (Composite)
Power Source :	220 - 240V AC 50 Hz
Power Consumption :	Operation mode; Approximately 45W Stand-by mode; Approximately 5W
Ambient Operating Temperature :	0 - 40°C
Ambient Operating Humidity :	Less than 90%
Dimensions :	480 (W)×164 (H)×396 (D) mm
Wight :	6.8 Kg

Weight and dimensions indicated above are approximate.
Specifications are subject to change without notice.

STANDARD ACCESSORY

- Wipe Pattern Sheet .... 1 pc.

OPTIONAL ACCESSORIES

- Charactor Generator WJ-KB30, WJ-KB50

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This service manual describes difference from the WJ-MX50.

ADJUSTMENT PROCEDURE

3-4(A). Ach VCO Adjustment

Test point:	**TP103**	**Digital Board**
Adjust:	**L108**	**Digital Board**

- Supply the colour bar signal with the Y/C components to the source Input of WJ-MX50A and select the Ach input.
- Connect the digital voltmeter to TP103.
- Adjust L108 to obtain the voltage of 2.1 ± 0.1V.

3-4(B). Bch VCO Adjustment

Test point:	**TP107**	**Digital Board**
Adjust:	**L119**	**Digital Board**

- Supply the colour bar signal with the Y/C components to the source Input of WJ-MX50A and select the Bch input.
- Connect the digital voltmeter to TP107.
- Adjust L119 to obtain the voltage of 2.1 ± 0.1V.

3-5. Converter VCO Adjustment

Test point:	**TP108**	**Digital Board**
Adjust:	**L126**	**Digital Board**

- Connect the digital voltmeter to TP108.
- Adjust L126 to obtain the voltage of 2.5 ± 0.1V.

3-6. Program Y gain Adjustment

Test point:	**Y/C Program Output**	**Rear Panel**
Adjust:	**VR26**	**Analog Board**

- Output the internal colour bar signal to the Y/C Program Output.
- Adjust VR26 so that the white level becomes 105 ± 2 IRE.

3-8. Program COMP Gain Adjustment

Test point:	**COMP. Program Output**	**Rear Panel**
Adjust:	**VR39**	**Analog Board**

- Output the internal colour bar signal to the COMP. Program Output.
- Adjust VR39 so that the white level becomes 105 ± 2 IRE.

3-9. Preview Y Gain Adjustment

Test point:	**Y/C Preview Output**	**Rear Panel**
Adjust:	**VR28**	**Analog Board**

- Output the internal colour bar signal to the Y/C Preview Output.
- Adjust VR28 so that the white level becomes 105 ± 2 IRE.

3-19. Ach Y Gain Adjustment

Test point:	**Y/C Program Output**	**Rear Panel**
Adjust:	**VR15**	**Analog Board**

- Supply the RAMP signal (Y=100 IRE, APL=50%) with the Y/C components to the Ach input.
- Adjust VR15 so that the white level becomes 102 ± 2 IRE.

3-25. Bch Y Gain Adjustment

Test point:	**Y/C Program Output**	**Rear Panel**
Adjust:	**VR18**	**Analog Board**

- Supply the RAMP signal (Y=100 IRE, APL= 50%) with the Y/C components to the Y/C Source Input of both Ach and Bch.
- Select the horizontal wipe pattern (◧) and wipe the signal at the black portion.
- Adjust VR18 so that the two white level of the RAMP signal matches at 102 ± 2 IRE.

3-27. Bch COMP. Gain Adjustment

Test point:	**Y/C Program Output**	**Rear Panel**
Adjust:	**VR5**	**Analog Board**

- Supply the RAMP signal (Y=100 IRE, APL= 50%) with the Y/C components to the Y/C Source Input of Ach and the composite RAMP signal to the COMP. Source Input of Bch.
- Select the horizontal wipe pattern (◧) and wipe the signal at the white portion.
- Adjust VR5 so that the two white level of the RAMP signal matches at 102 ± 2 IRE.

3-28. Ach COMP. Gain Adjustment

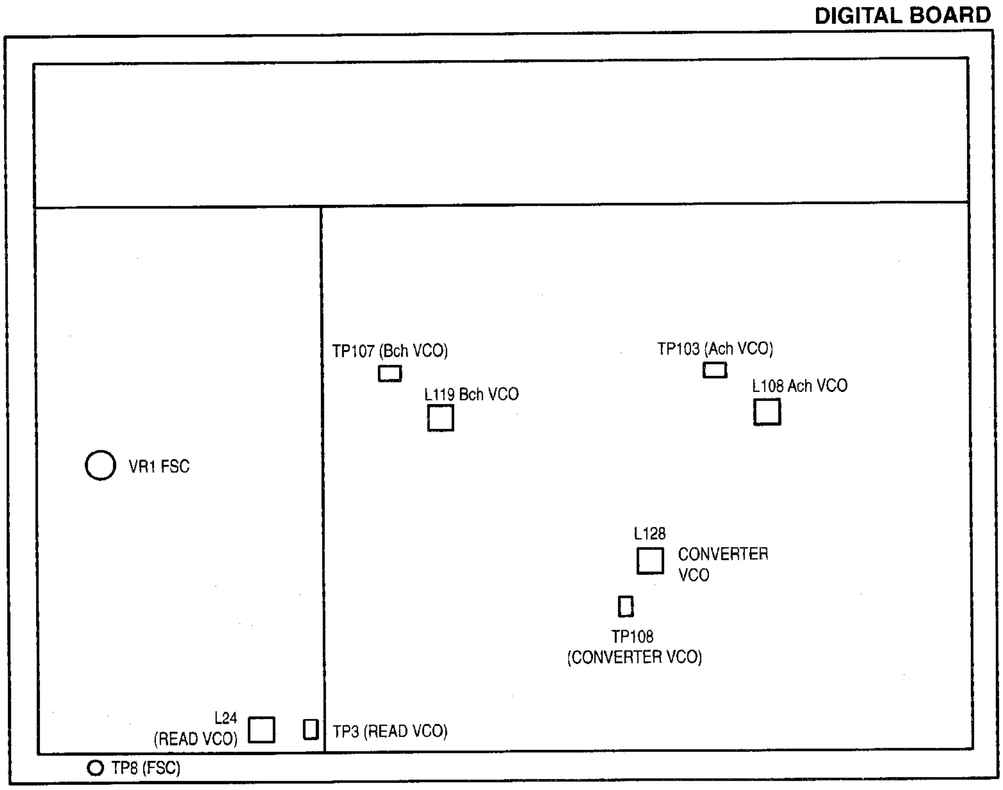
Test point:	**COMP. Program Output**	**Rear Panel**
Adjust:	**VR1**	**Analog Board**

- Supply the composite RAMP signal (Y=100 IRE, APL=50%) to the COMP. Source Input of both Ach and Bch.
- Select the horizontal wipe pattern (◧) and wipe the signal at the white portion.
- Adjust VR1 so that the two white level of the RAMP signal matches at 102 ± 2 IRE.

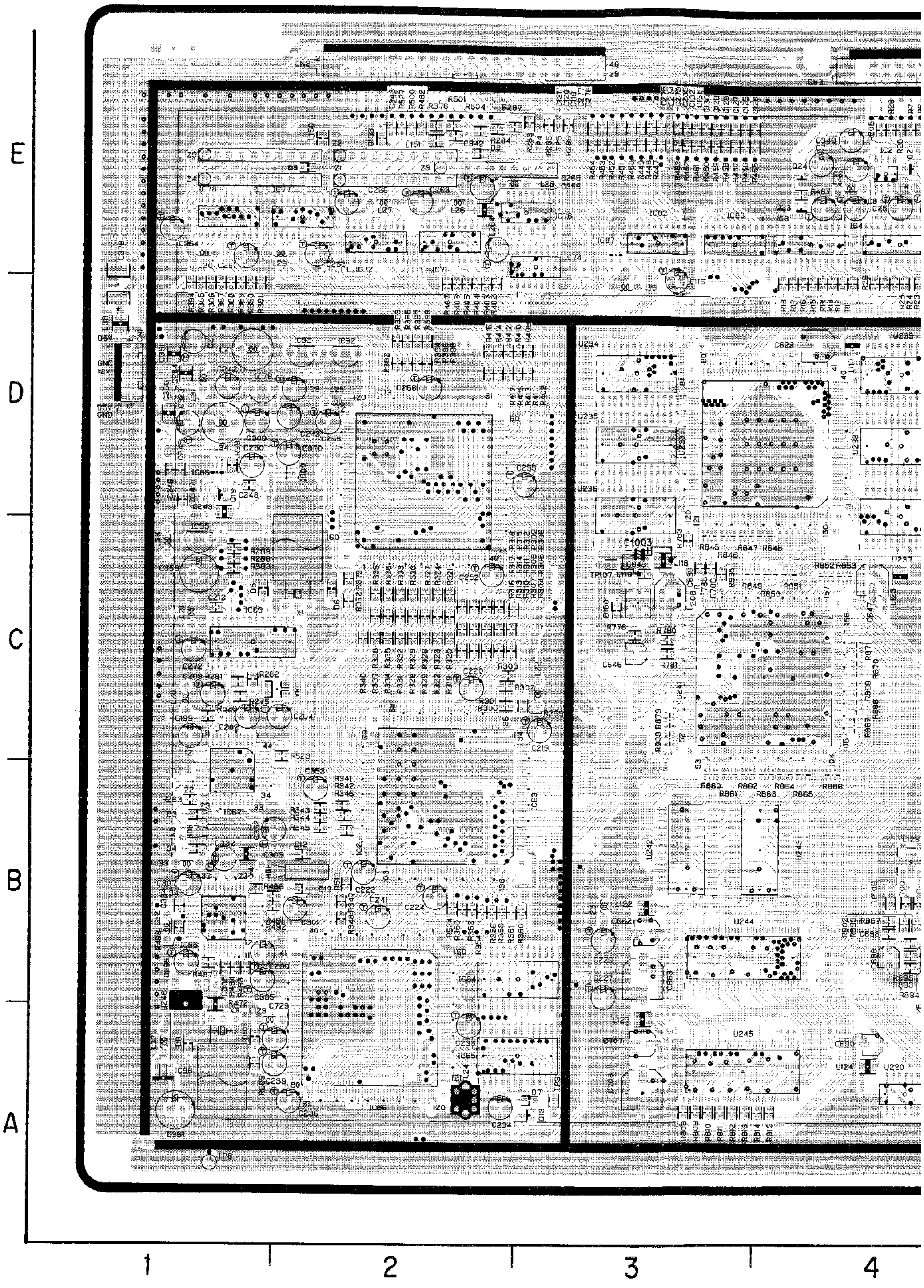
Notes:

- Other adjustment items are exactly same as WJ-MX50.
- Please kindly refer original manual.

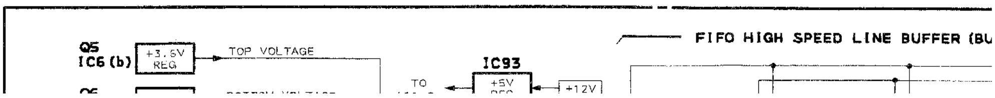
LOCATION OF TEST POINTS AND ADJUSTING CONTROLS


DIGITAL BOARD
TP107 (Bch VCO)
L119 Bch VCO
TP103 (Ach VCO)
L108 Ach VCO
VR1 FSC
L128
CONVERTER VCO
TP108 (CONVERTER VCO)
L24 (READ VCO)
TP3 (READ VCO)
TP8 (FSC)

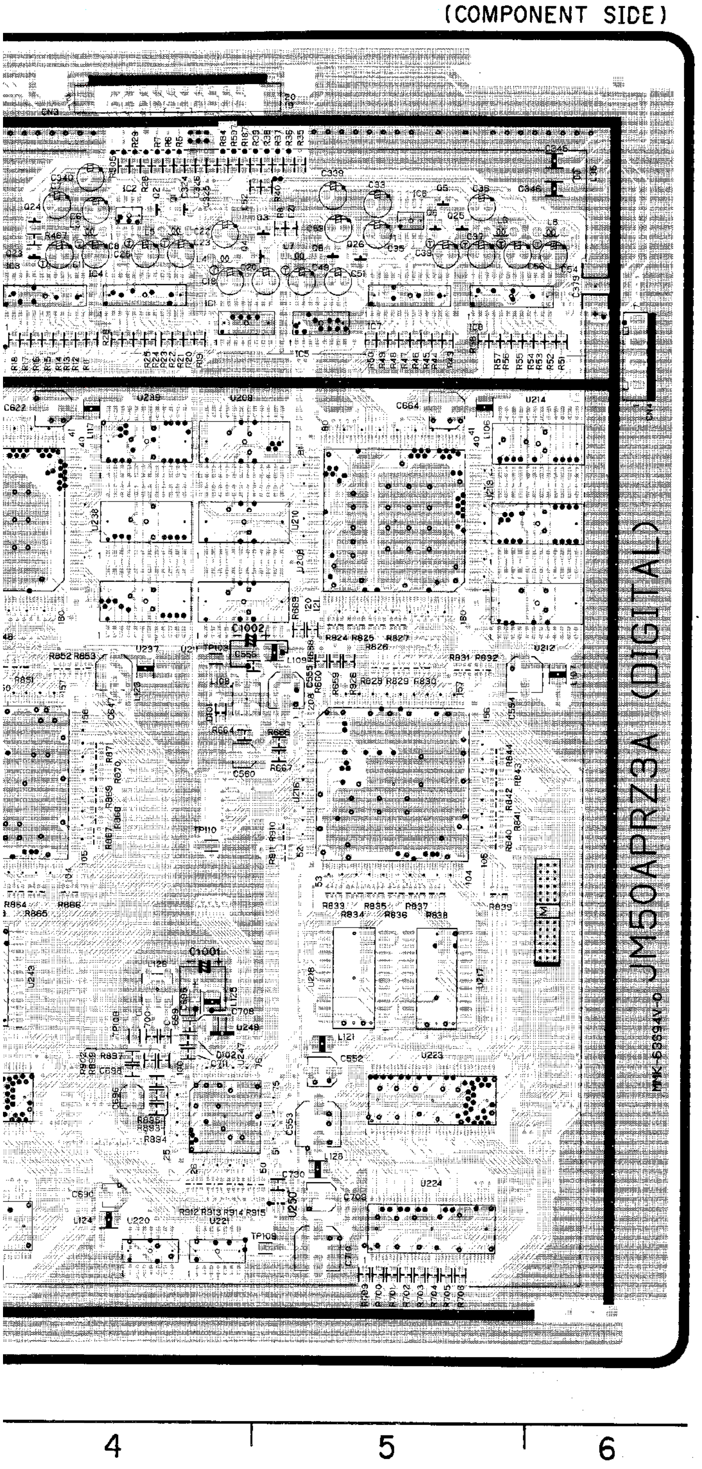
DIGITAL BOARD


E
D
C
B
A
1
2
3
4
CN2
CN3

DIGITAL BOARD


Q5
IC6 (b)
+3.5V REG
TOP VOLTAGE
Q6
BOTTOM VOLTAGE
TO
IC93
+5V REG
+12V
FIFO HIGH SPEED LINE BUFFER (BU

CONDUCTOR VIEW OF DIGITAL BOARD



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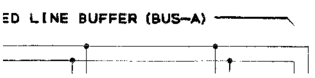
DIGITAL BOARD (COMPONENT SIDE)

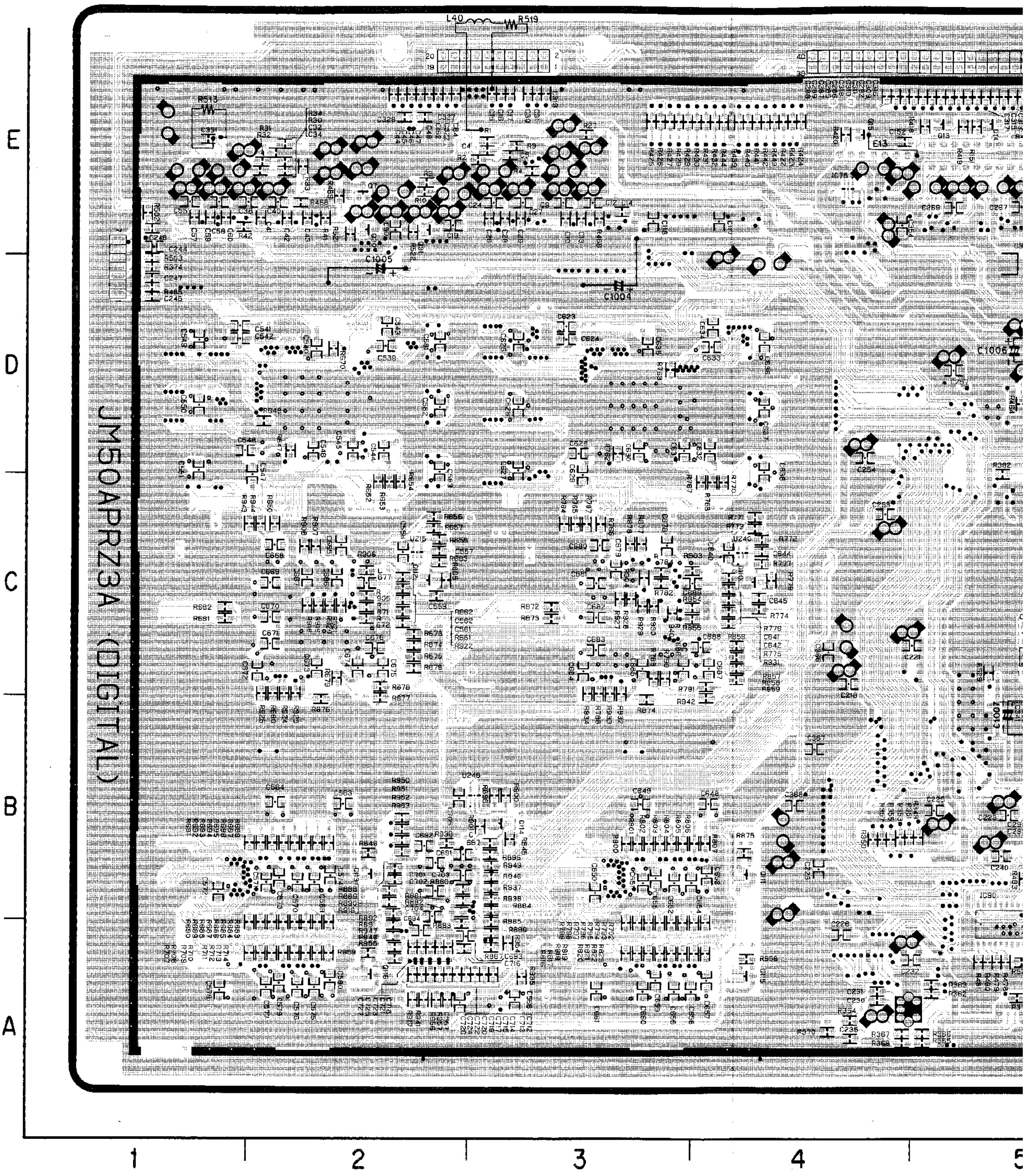
IC1	E4
IC2	E4
IC3	E4
IC4	E4
IC5	D5
IC6	E5
IC7	E5
IC8	E5
IC63	B3
IC64	B2
IC65	A2
IC66	A2
IC67	B1
IC69	C1
IC71	E2
IC72	E2
IC73	D2
IC74	E3
IC76	E3
IC77	E2
IC78	E1
IC79	D1
IC80	D2
IC82	E3
IC83	E3
IC86	D1
IC87	E3
IC88	B1
IC92	D2
IC93	D2
IC95	C1
IC96	A1
U208	D5
U209	D4
U210	D5
U211	C4
U212	C6
U213	D5
U214	D6
U216	C5
U217	B5
U218	B5
U220	A4
U221	A4
U223	B5
U224	A5
U233	D3
U234	D3
U235	D3
U236	D3
U237	C4
U238	D4
U239	D4
U241	C3
U242	B3
U243	B4
U244	B3
U245	A3
U247	B4
U248	A1
U249	B4
U250	A5
Q1	E4
Q2	E4
Q3	E4
Q4	E4
Q5	E5
Q6	E5
Q8	E5
Q18	A3
Q19	D1
Q23	E4
Q24	E4
Q25	E5
Q26	E5
D3	B1
D4	B1
D5	C1
D6	C2
D7	A3
D8	E2
D9	E2
D10	A1
D11	A1
D12	B2
D13	B2
D100	C3
D101	C4
D102	B4

BLOCK DIAGRAM OF DIGITAL BOARD



)ARD

DIGITAL BOARD



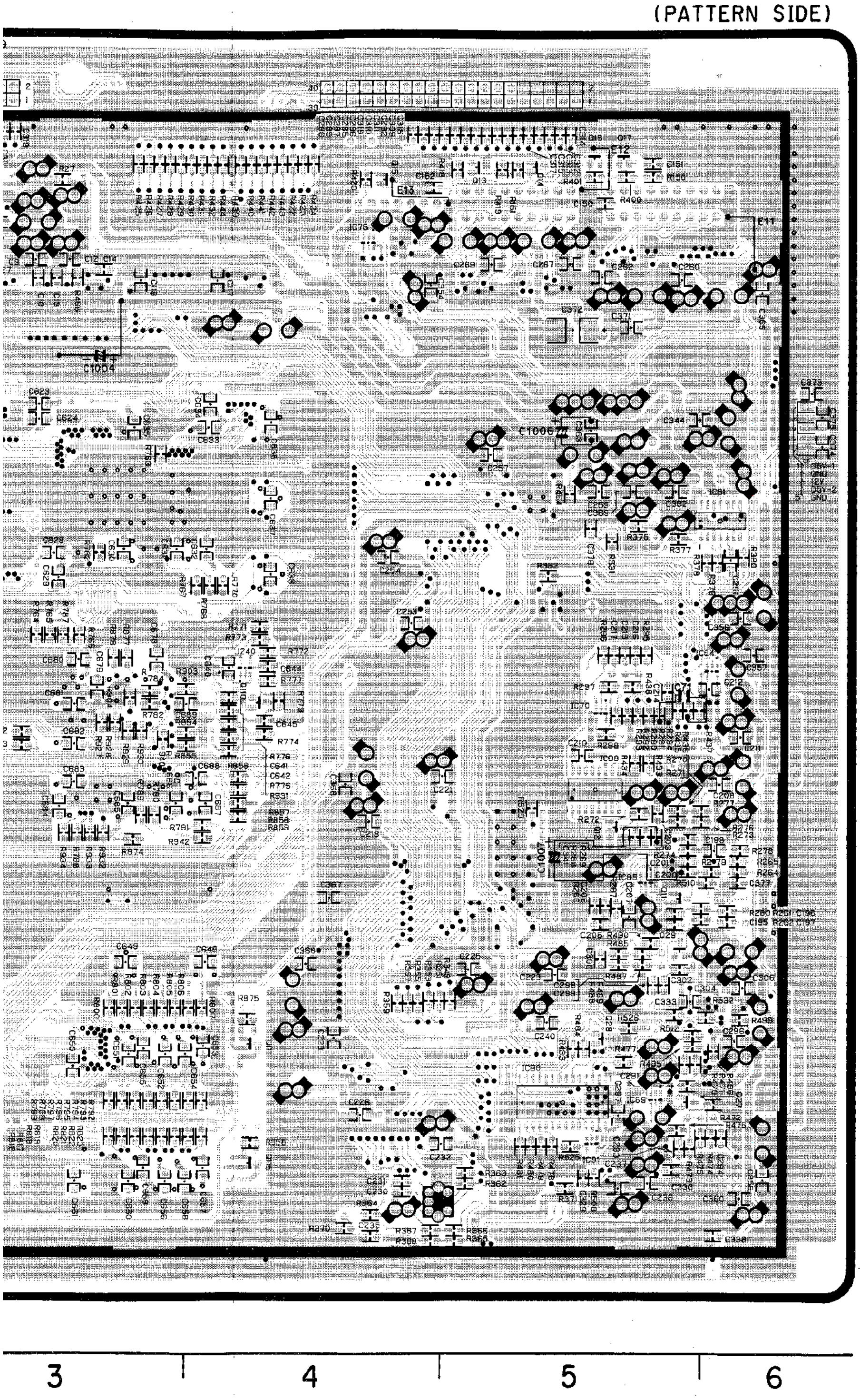
JM50APRZ3A (DIGITAL)
E
D
C
B
A
1
2
3
4
5
L40
R519
C1005
C1004
C1006

)ARD

CHARACTER GENERATOR INTERFACE

IC86

IC81


(PATTERN SIDE)
3
4
5
6

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DIGITAL BOARD (PATTERN SIDE)

IC68	C5
IC70	C5
IC75	E4
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IC84	C6
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IC91	A5
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U240	C4
U246	B3
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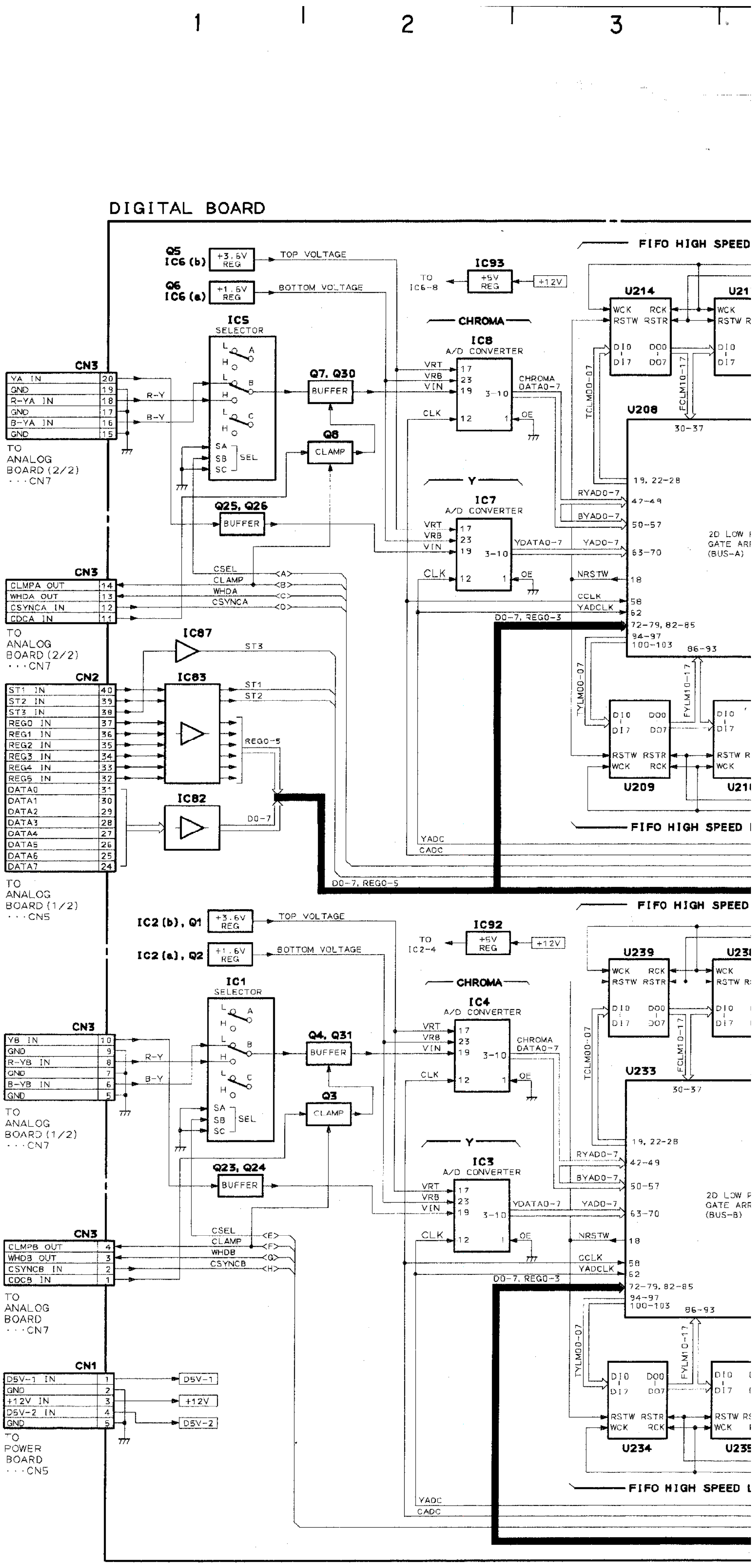
Q11	B5
Q12	C5
Q13	E5
Q14	E5
Q15	E4
Q16	E5
Q17	E5
Q27	A6
Q28	B5
Q29	B5
Q30	E2
Q31	E2
Q110	C4
Q111	B4
Q112	C2
Q113	B2
Q114	B3
Q115	A4
Q116	A2

CHARACTER GENERATOR INTERFACE
IC85
IC81
CN4


1
2
3
DIGITAL BOARD
Q5 IC6 (b) +3.6V REG TOP VOLTAGE
Q6 IC6 (a) +1.6V REG BOTTOM VOLTAGE
TO IC6-8
IC93 +5V REG +12V
FIFO HIGH SPEED
U214 WCK RCK RSTW RSTR DI0 DI7 DO0 DO7
U21
CHROMA
IC8 A/D CONVERTER VRT VRB VIN CLK 17 23 19 12 3-10 1 OE
CHROMA DATA0-7
IC5 SELECTOR L H A B C SA SB SC SEL
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Q8 CLAMP
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IC2 (a), Q2 +1.6V REG BOTTOM VOLTAGE
TO IC2-4
IC92 +5V REG +12V
U239 WCK RCK RSTW RSTR DI0 DI7 DO0 DO7
U23
CHROMA
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CHROMA DATA0-7
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GND 7
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GND 5
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B-Y
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FCLM10-17
U233 30-37
19, 22-28
RYAD0-7 47-49
BYAD0-7 50-57
Y
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WHDB OUT 3
CSYNCB IN 2
CDCB IN 1
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94-97
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+12V
D5V-2
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FYLM10-17
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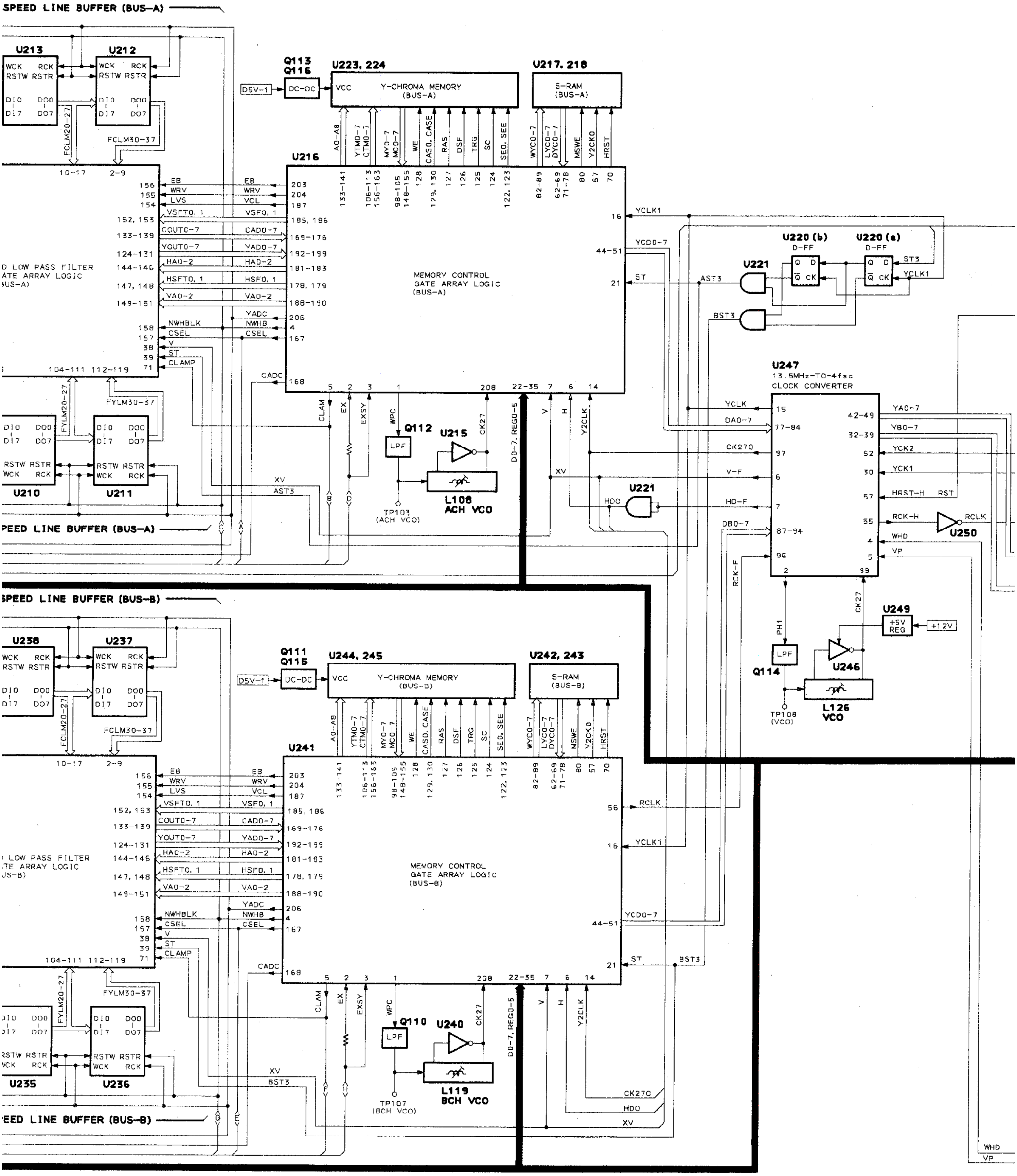
U23
FIFO HIGH SPEED
YADC
CADC

BLOCK DIAGRAM OF DIGITAL BOA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U212
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RSTW RSTR
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DI7 DO7
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FCLM30-37
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EXSY
WPC
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V
H
Y2CLK
Q112
U215
LPF
L108
ACH VCO
TP103
(ACH VCO)
FYLM20-27
FYLM30-37
U210
U211
XV
AST3
PEED LINE BUFFER (BUS-A)
U220 (b)
D-FF
U220 (a)
D-FF
Q D
Q CK
ST3
YCLK1
U221
AST3
BST3
U247
13.5MHz-TO-4fsc
CLOCK CONVERTER
YCLK
DA0-7
CK270
V-F
HD-F
DB0-7
RCK-F
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77-84
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7
87-94
96
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99
42-49
32-39
52
30
57
55
4
5
YA0-7
YB0-7
YCK2
YCK1
HRST-H
RST
RCK-H
RCLK
U250
WHD
VP
XV
U221
HDO
PH1
CK27
U249
+5V
REG
+12V
LPF
Q114
U246
TP108
(VCO)
L126
VCO
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U237
Q111
Q115
U244, 245
Y-CHROMA MEMORY
(BUS-B)
U242, 243
S-RAM
(BUS-B)
U241
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TE ARRAY LOGIC
US-B)
MEMORY CONTROL
GATE ARRAY LOGIC
(BUS-B)
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YCLK1
44-51
YCD0-7
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ST
BST3
Q110
U240
LPF
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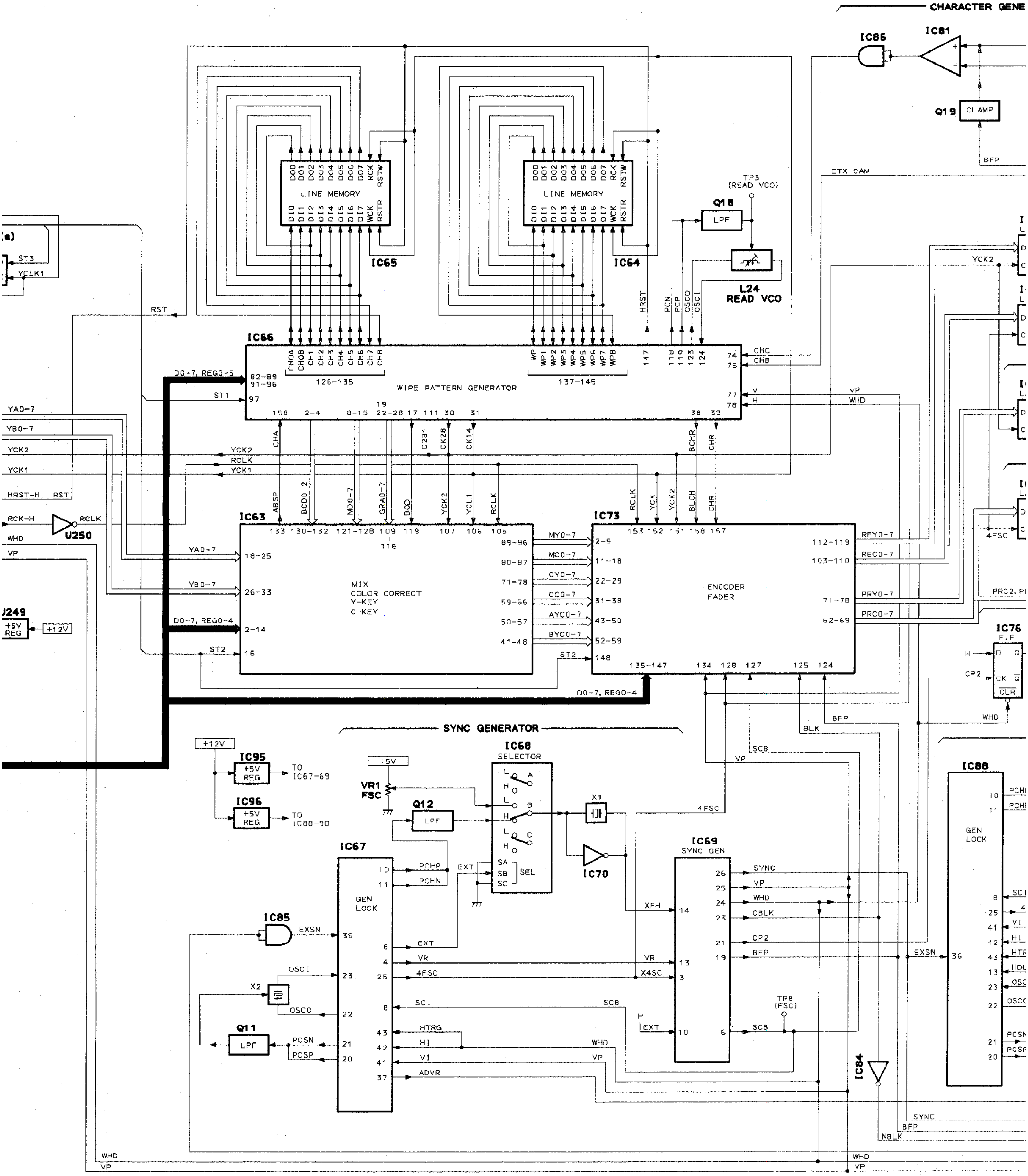
BCH VCO
TP107
(BCH VCO)
U235
U236
XV
BST3
CK270
HDO
XV
EED LINE BUFFER (BUS-B)
WHD
VP

1 2 3 4

ITAL BOARD


CHARACTER GENE
IC86
IC81
Q19
CLAMP
BFP
ETX CAM
TP3
(READ VCO)
Q18
LPF
L24
READ VCO
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DI0 DI1 DI2 DI3 DI4 DI5 DI6 DI7 WCK RSTR
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IC64
HRST
PCN
PCP
OSCO
OSCI
IC66
CHOA CHOB CH1 CH2 CH3 CH4 CH5 CH6 CH7 CH8
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CHB
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91-96
97
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38 39
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CK28
CK14
BCHR
CHR
RST
ST3
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YA0-7
YB0-7
YCK2
YCK1
RCLK
HRST-H
RCK-H
U250
WHD
VP
ABSP
BCD0-2
MD0-7
GRA0-7
BOD
YCK2
YCL1
RCLK
RCLK
YCK
YCK2
BLCH
CHR
IC63
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116
18-25
26-33
2-14
16
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COLOR CORRECT
Y-KEY
C-KEY
89-96
80-87
71-78
59-66
50-57
41-48
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MC0-7
CY0-7
CC0-7
AYC0-7
BYC0-7
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2-9
11-18
22-29
31-38
43-50
52-59
148
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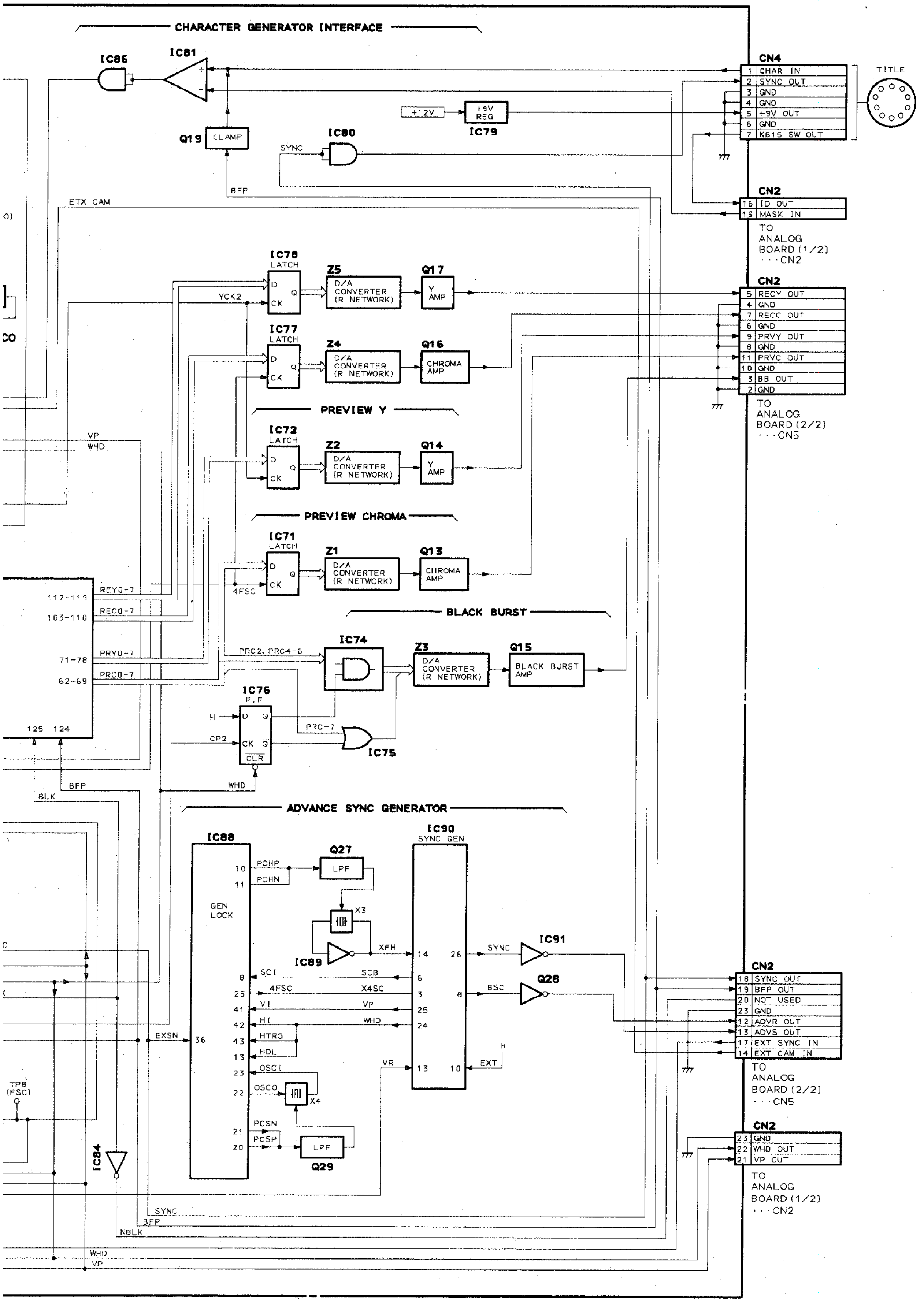
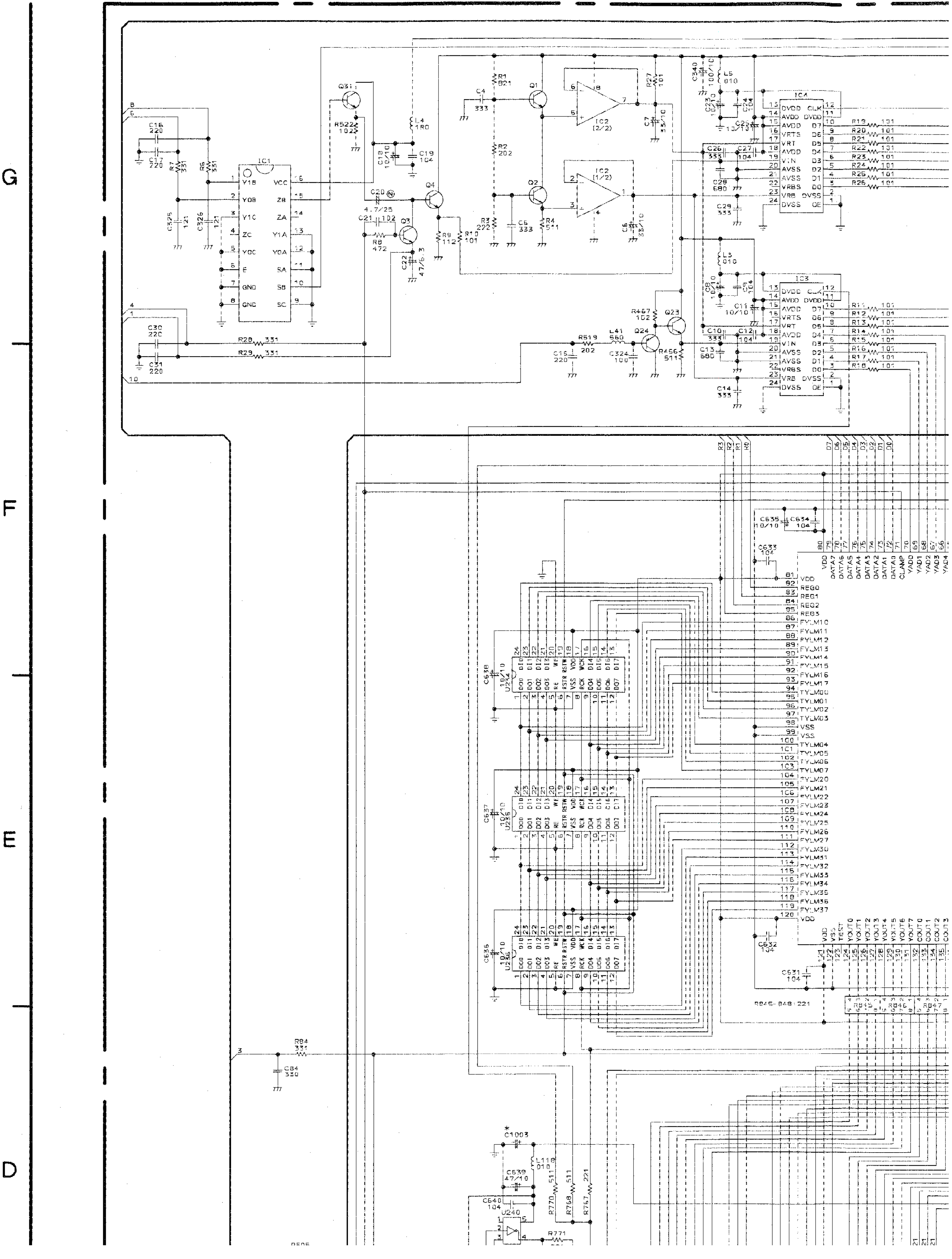
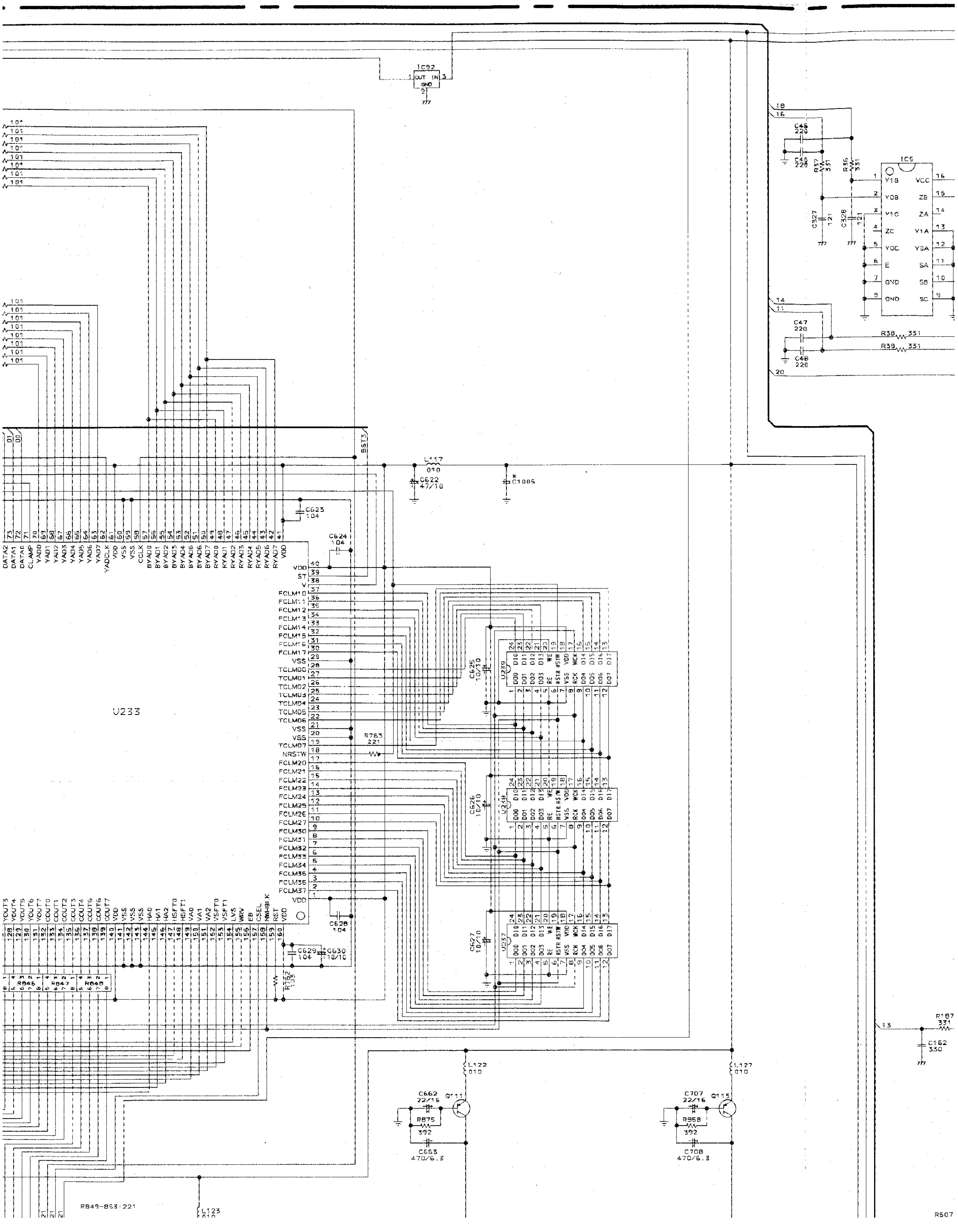
FADER
112-119
103-110
71-78
62-69
135-147 134 128 127 125 124
REY0-7
REC0-7
PRY0-7
PRC0-7
PRC2, P
4FSC
YCK2
IC76
F.F
H
CP2
D Q
CK
CLR
WHD
BFP
BLK
SCB
VP
J249
+5V
REG
+12V
SYNC GENERATOR
+12V
IC95
+5V REG
TO IC67-69
IC96
+5V REG
TO IC88-90
+5V
VR1
FSC
Q12
LPF
IC68
SELECTOR
L H A
L H B
L H C
SA
SB
SC
SEL
EXT
X1
IC70
4FSC
IC67
GEN LOCK
10 PCHP
11 PCHN
6 EXT
4 VR
25 4FSC
8 SCI
43 HTRG
42 HI
41 VI
37 ADVR
IC85
EXSN
36
OSCI
23
X2
OSCO
22
Q11
LPF
PCSN 21
PCSP 20
IC69
SYNC GEN
XFH 14
VR 13
X4SC 3
H EXT 10
26 SYNC
25 VP
24 WHD
23 CBLK
21 CP2
19 BFP
6 SCB
SCB
WHD
VP
TP8
(FSC)
IC84
EXSN
IC88
GEN LOCK
10 PCH
11 PCH
8 SCI
25 4
41 VI
42 HI
43 HTR
13 HDL
23 OSC
22 OSCO
21 PCSN
20 PCSP
36
SYNC
BFP
NBLK
WHD
VP


CHARACTER GENERATOR INTERFACE
IC86
IC81
Q19
CLAMP
IC80
SYNC
BFP
+12V
+9V REG
IC79
CN4
1 CHAR IN
2 SYNC OUT
3 GND
4 GND
5 +9V OUT
6 GND
7 KB15 SW OUT
TITLE
ETX CAM
CN2
16 ID OUT
15 MASK IN
TO ANALOG BOARD (1/2) ···CN2
IC78 LATCH
YCK2
D
CK
Q
Z5
D/A CONVERTER (R NETWORK)
Q17
Y AMP
IC77 LATCH
Z4
Q16
CHROMA AMP
CN2
5 RECY OUT
4 GND
7 RECC OUT
6 GND
9 PRVY OUT
8 GND
11 PRVC OUT
10 GND
3 BB OUT
2 GND
TO ANALOG BOARD (2/2) ···CN5
PREVIEW Y
IC72 LATCH
Z2
Q14
Y AMP
VP
WHD
PREVIEW CHROMA
IC71 LATCH
Z1
Q13
CHROMA AMP
4FSC
BLACK BURST
112-119
REY0-7
103-110
REC0-7
71-78
PRY0-7
62-69
PRC0-7
125 124
PRC2, PRC4-6
IC74
Z3
D/A CONVERTER (R NETWORK)
Q15
BLACK BURST AMP
IC76 F.F
H
CP2
CLR
PRC-7
IC75
WHD
BFP
BLK
ADVANCE SYNC GENERATOR
IC88
GEN LOCK
10 PCHP
11 PCHN
Q27
LPF
X3
IC89
XFH
IC90 SYNC GEN
14
26
SYNC
IC91
8 SCI
SCB
6
25 4FSC
X4SC
3
8
BSC
Q28
41 VI
VP
25
42 HI
WHD
24
43 HTRG
13 HDL
EXSN
36
23 OSCI
22 OSCO
X4
VR
13
10
EXT
H
21 PCSN
20 PCSP
LPF
Q29
CN2
18 SYNC OUT
19 BFP OUT
20 NOT USED
23 GND
12 ADVR OUT
13 ADVS OUT
17 EXT SYNC IN
14 EXT CAM IN
TO ANALOG BOARD (2/2) ···CN5
CN2
23 GND
22 WHD OUT
21 VP OUT
TO ANALOG BOARD (1/2) ···CN2
TP8 (FSC)
IC84
SYNC
BFP
NBLK
WHD
VP
O)
CO

DIGITAL BOARD (1/2)

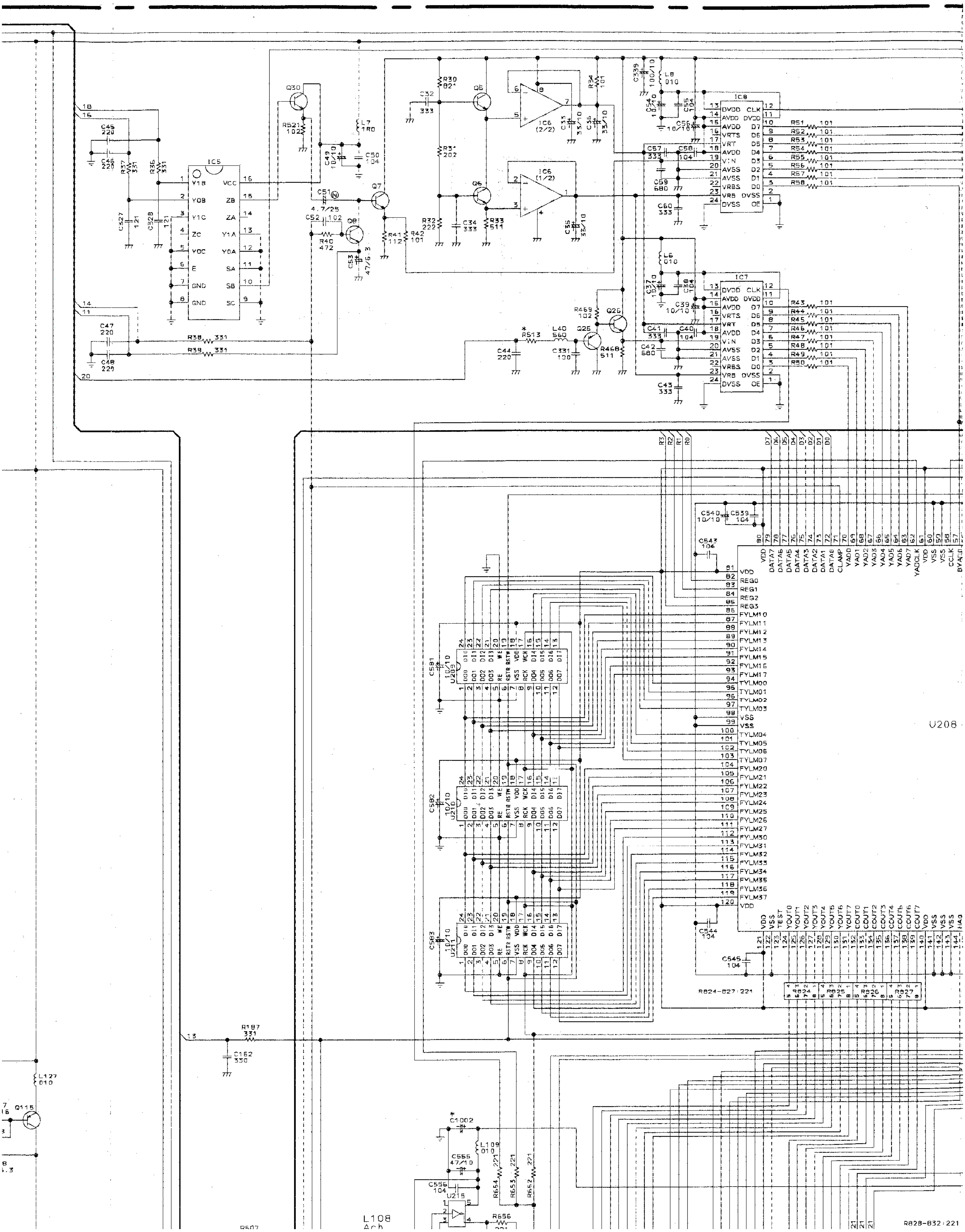

G
F
E
D
IC1
Y1B
Y0B
Y1C
ZC
Y0C
E
GND
VCC
ZB
ZA
Y1A
Y0A
SA
SB
SC
C16 220
C17 220
R7 331
R6 331
C325 121
C326 121
C30 220
C31 220
R28 331
R29 331
Q31
R522 102
L4 1R0
C18 10/10
C19 104
C20 4.7/25
C21 102
R8 472
Q3
C22 47/6.3
Q4
R9 112
R10 101
R1 821
C4 333
R2 202
R3 222
C5 333
Q1
Q2
R4 511
IC2 (2/2)
IC2 (1/2)
R27 101
C7 33/10
C6 33/10
C340 100/10
L5 010
C23 10/10
C24 104
C25 10/10
IC4
DVDD
AVDD
VRTS
VRT
VIN
AVSS
VRBS
VRB
DVSS
CLK
D7
D6
D5
D4
D3
D2
D1
D0
OE
C26 333
C27 104
C28 680
C29 333
R19 101
R20 101
R21 101
R22 101
R23 101
R24 101
R25 101
R26 101
L3 010
C8 10/10
C9 104
C11 10/10
IC3
C10 333
C12 104
C13 680
C14 333
R11 101
R12 101
R13 101
R14 101
R15 101
R16 101
R17 101
R18 101
R467 102
Q23
Q24
R456 511
L41 560
C324 100
R519 202
C15 220
R3 R2 R1 R0
D7 D6 D5 D4 D3 D2 D1 D0
C635 10/10
C634 104
C633 104
VDD
DATA7
DATA6
DATA5
DATA4
DATA3
DATA2
DATA1
DATA0
CLAMP
VDD
YAD1
YAD2
YAD3
YAD4
REG0
REG1
REG2
REG3
FYLM10
FYLM11
FYLM12
FYLM13
FYLM14
FYLM15
FYLM16
FYLM17
TYLM00
TYLM01
TYLM02
TYLM03
VSS
TYLM04
TYLM05
TYLM06
TYLM07
FYLM20
FYLM21
FYLM22
FYLM23
FYLM24
FYLM25
FYLM26
FYLM27
FYLM30
FYLM31
FYLM32
FYLM33
FYLM34
FYLM35
FYLM36
FYLM37
VDD
C638 10/10
U234
C637 10/10
U235
C636 10/10
U236
DI0 DI1 DI2 DI3 WE RSTW VDD DI4 DI5 DI6 DI7
DO0 DO1 DO2 DO3 RE RSTR VSS RCK WCK DO4 DO5 DO6 DO7
C632 104
C631 104
VDD
VSS
TEST
YOUT0
YOUT1
YOUT2
YOUT3
YOUT4
YOUT5
YOUT6
YOUT7
COUT0
COUT1
COUT2
COUT3
R845-848:221
R845
R846
R847
R84 331
C84 330
C1003
L110 010
C639 47/10
C640 104
U240
R770 511
R768 511
R767 221
R771
R505

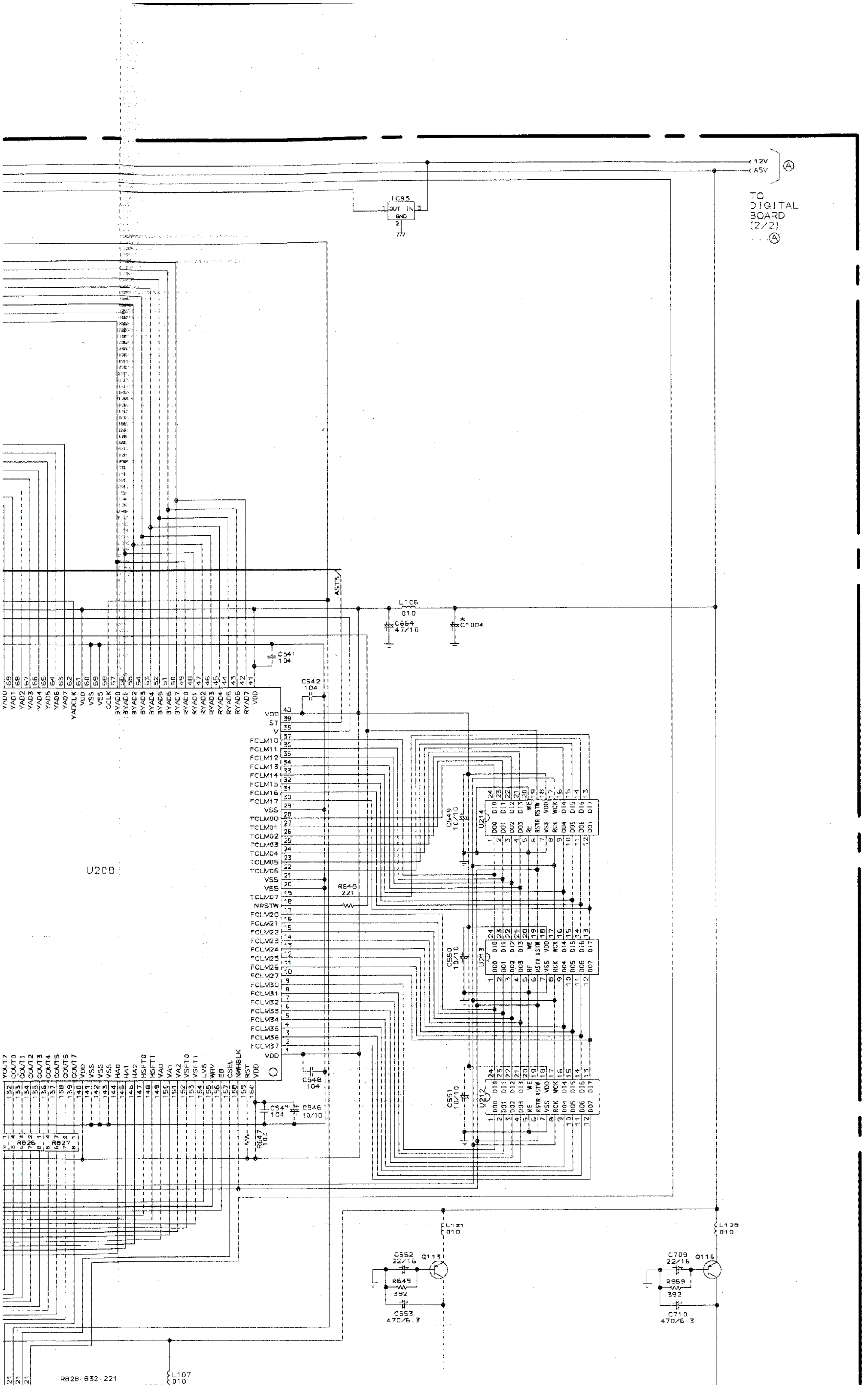
SCHEMATIC DIAGRAM OF DIGI



IC92
OUT IN
GND
IC5
Y1B
Y0B
Y1C
ZC
Y0C
E
GND
VCC
ZB
ZA
Y1A
Y0A
SA
SB
SC
C45 220
C46 220
R37 331
R36 331
C327 121
C328 121
C47 220
C48 220
R38 331
R39 331
L117 010
C622 47/10
C1005
C623 104
C624 104
U233
R763 221
U239
U240
U237
C625 10/10
C626 10/10
C627 10/10
C628 104
C629 104
C630 10/10
R846
R847
R848
R762 103
BST3
DATA2
DATA1
DATA0
CLAMP
YAD0
YAD1
YAD2
YAD3
YAD4
YAD5
YAD6
YAD7
YADCLK
VDD
VSS
CCLK
BYAD0
BYAD1
BYAD2
BYAD3
BYAD4
BYAD5
BYAD6
BYAD7
RYAD0
RYAD1
RYAD2
RYAD3
RYAD4
RYAD5
RYAD6
RYAD7
ST
V
FCLM10
FCLM11
FCLM12
FCLM13
FCLM14
FCLM15
FCLM16
FCLM17
TCLM00
TCLM01
TCLM02
TCLM03
TCLM04
TCLM05
TCLM06
TCLM07
NRSTW
FCLM20
FCLM21
FCLM22
FCLM23
FCLM24
FCLM25
FCLM26
FCLM27
FCLM30
FCLM31
FCLM32
FCLM33
FCLM34
FCLM35
FCLM36
FCLM37
YOUT3
YOUT4
YOUT5
YOUT6
YOUT7
COUT0
COUT1
COUT2
COUT3
COUT4
COUT5
COUT6
COUT7
HA0
HA1
HA2
HSFT0
HSFT1
VA0
VA1
VA2
VSFT0
VSFT1
LVS
WRV
FB
CSEL
NWHBLK
RST
DI0
DI1
DI2
DI3
WE
RSTW
DO0
DO1
DO2
DO3
RE
RSTR
RCK
WCK
DO4
DO5
DO6
DO7
DI4
DI5
DI6
DI7
D1
D0
101
L122 010
L127 010
L123 010
C662 22/16
C707 22/16
Q111
Q115
R875 392
R958 392
C663 470/6.3
C708 470/6.3
R187 331
C162 330
R849-853:221
R507

C DIAGRAM OF DIGITAL BOARD (1/2)


IC5
Y1B
Y0B
Y1C
ZC
V0C
E
GND
VCC
ZB
ZA
Y1A
Y0A
SA
SB
SC
Q30
R521 102
L7 1R0
C49 10/10
C50 104
C51 4.7/25
C52 102
R40 472
Q7
Q8
C53 47/6.3
R41 112
R42 101
C32 333
R30 821
Q5
R31 202
R32 222
C34 333
Q6
R33 511
IC6 (2/2)
IC6 (1/2)
C35 33/10
C33 33/10
C36 33/10
R34 101
C339 100/10
L8 010
C54 10/10
C55 104
C56 10/10
C57 333
C58 104
C59 680
C60 333
IC8
DVDD
AVDD
VRTS
VRT
VIN
AVSS
VRBS
VRB
DVSS
CLK
D7
D6
D5
D4
D3
D2
D1
D0
OE
R51 101
R52 101
R53 101
R54 101
R55 101
R56 101
R57 101
R58 101
L6 010
C37 10/10
C38 104
C39 10/10
C41 333
C40 104
C42 680
C43 333
IC7
R43 101
R44 101
R45 101
R46 101
R47 101
R48 101
R49 101
R50 101
R469 102
Q26
Q25
R468 511
R513
L40 560
C331 100
C44 220
C45 220
C46 220
R37 331
R36 331
C527 121
C528 121
C47 220
C48 220
R38 331
R39 331
R3
R2
R1
R0
D7
D6
D5
D4
D3
D2
D1
D0
C540 10/10
C539 104
C543 104
VDD
REG0
REG1
REG2
REG3
FYLM10
FYLM11
FYLM12
FYLM13
FYLM14
FYLM15
FYLM16
FYLM17
TYLM00
TYLM01
TYLM02
TYLM03
VSS
VSS
TYLM04
TYLM05
TYLM06
TYLM07
FYLM20
FYLM21
FYLM22
FYLM23
FYLM24
FYLM25
FYLM26
FYLM27
FYLM30
FYLM31
FYLM32
FYLM33
FYLM34
FYLM35
FYLM36
FYLM37
VDD
U208
DATA7
DATA6
DATA5
DATA4
DATA3
DATA2
DATA1
DATA0
CLAMP
YAD0
YAD1
YAD2
YAD3
YAD4
YAD5
YAD6
YAD7
YADCLK
VDD
VSS
VSS
CCLK
VDD
VSS
TEST
YOUT0
YOUT1
YOUT2
YOUT3
YOUT4
YOUT5
YOUT6
YOUT7
COUT0
COUT1
COUT2
COUT3
COUT4
COUT5
COUT6
COUT7
VDD
VSS
VSS
C581 10/10
U209
C582 10/10
U210
C583 10/10
U211
DI0
DI1
DI2
DI3
DO0
DO1
DO2
DO3
WE
RSTW
RSTR
RE
VSS
VDD
RCK
WCK
C544 104
C545 104
R824-827:221
R824
R825
R826
R827
R828-832:221
R187 331
C162 330
L127 010
Q115
C1002
C555 47/10
L109 010
C556 104
U215
R654 221
R653 221
R652 221
R656
L108 Ach
R507

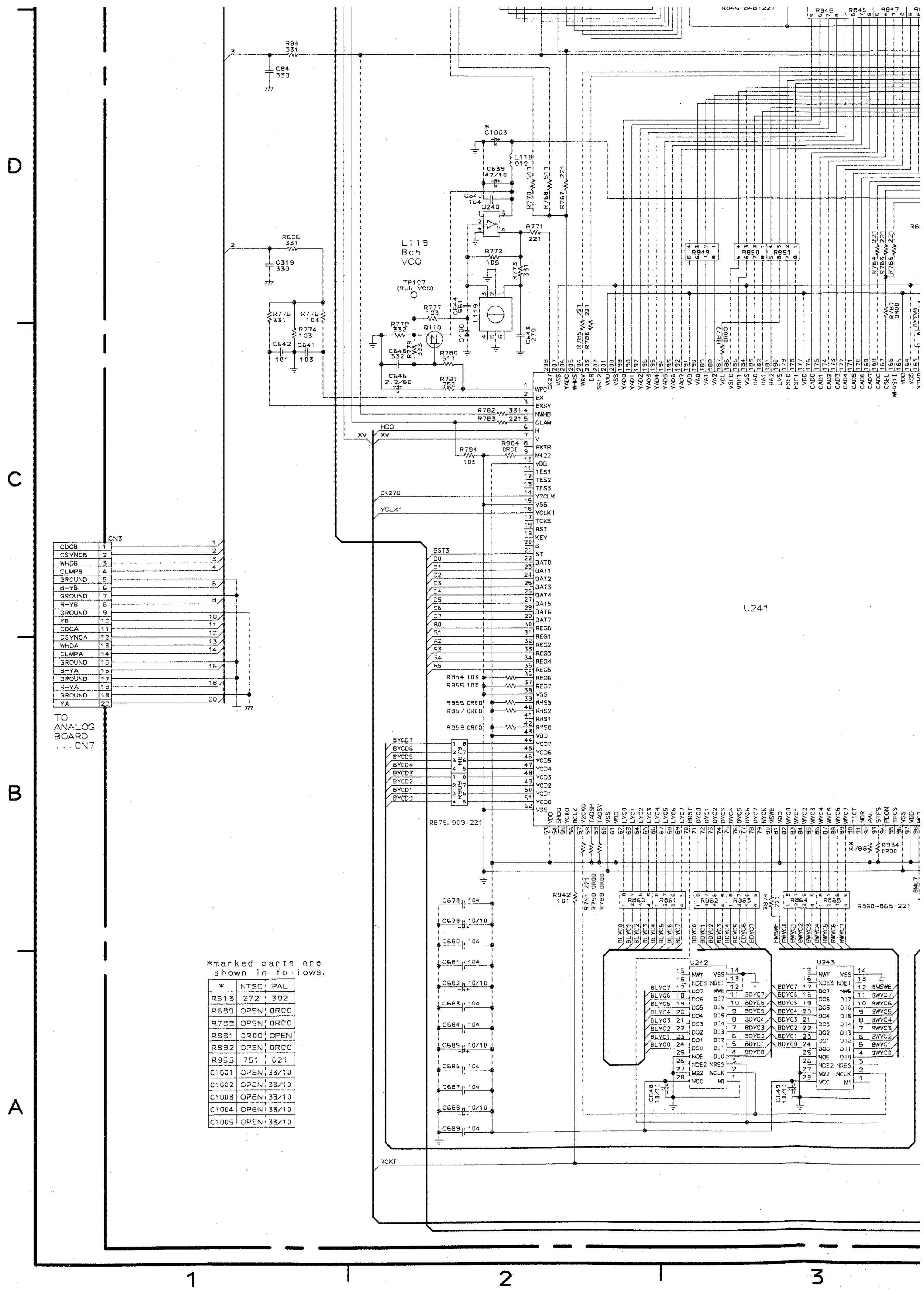


12V
A5V
Ⓐ
TO DIGITAL BOARD (2/2) ...Ⓐ
IC93
OUT
IN
GND
U208
U212
U213
U214
L106
010
C664
47/10
C1004
C541
104
C542
104
C548
104
C547
104
C546
10/10
C549
10/10
C550
10/10
C551
10/10
R648
221
R647
103
AST3
R826
R827
L121
010
L128
010
C552
22/16
Q113
R649
392
C553
470/6.3
C709
22/16
Q116
R959
392
C710
470/6.3
L107
010
R828-832.221
VDD
ST
V
NRSTW
FCLM10
FCLM37
TCLM00
TCLM07

<Index>

DIGITAL BOARD (1/2)

IC1	G1
IC2	G2
IC3	G3
IC4	G3
IC5	G6
IC6	G7
IC7	G7
IC8	G7
IC92	G4
IC93	G9
U208	E8
U209	E7
U210	E7
U211	E7
U212	E9
U213	E9
U214	E9
U215	D7
U216	C7
U217	A8
U218	A7
U220	A7
U221	A7
U223	C9
U224	C10
U233	E3
U234	E2
U235	E2
U236	E2
U237	E5
U238	E5
U239	E5
U240	D2
U241	C3
U242	A3
U243	A3
U244	C4
U245	C5
U246	A4
U247	A5
U249	A4
U250	A6
Q1	G2
Q2	G2
Q3	G2
Q4	G2
Q5	G7
Q6	G7
Q7	G6
Q8	G6
Q23	G2
Q24	G2
Q25	G7
Q26	G7
Q30	G6
Q31	G1
Q110	C2
Q111	D4
Q112	C6
Q113	D9
Q114	A4
Q115	D5


D
C
B
A
1
2
3
R84 331
C84 330
R506 331
C319 330
C1003
L118 010
C639 47/10
C640 104
U240
R770 511
R768 511
R767 221
R771 221
R772 105
R773 331
L119
Bch
VCO
TP107 (Bch VCO)
R777 103
C644 561
R778 332
Q110
D100
C643 270
R775 331
R776 104
R774 103
C642 101
C641 103
C645 332
R779 333
R780 511
C646 2.2/50
R781 752
R782 331
R783 221
R784 103
R904 0R00
R785 221
R786 221
R877 0R00
R849
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R851
R764 221
R765 221
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R847
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XV
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YCLK1
BST3
CN3
CDCB
CSYNCB
WHDB
CLMPB
GROUND
B-YB
R-YB
YB
CDCA
CSYNCA
WHDA
CLMPA
B-YA
R-YA
YA
TO ANALOG BOARD ...CN7
U241
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EX
EXSY
NWHB
CLAM
H
V
EXTR
M422
VDD
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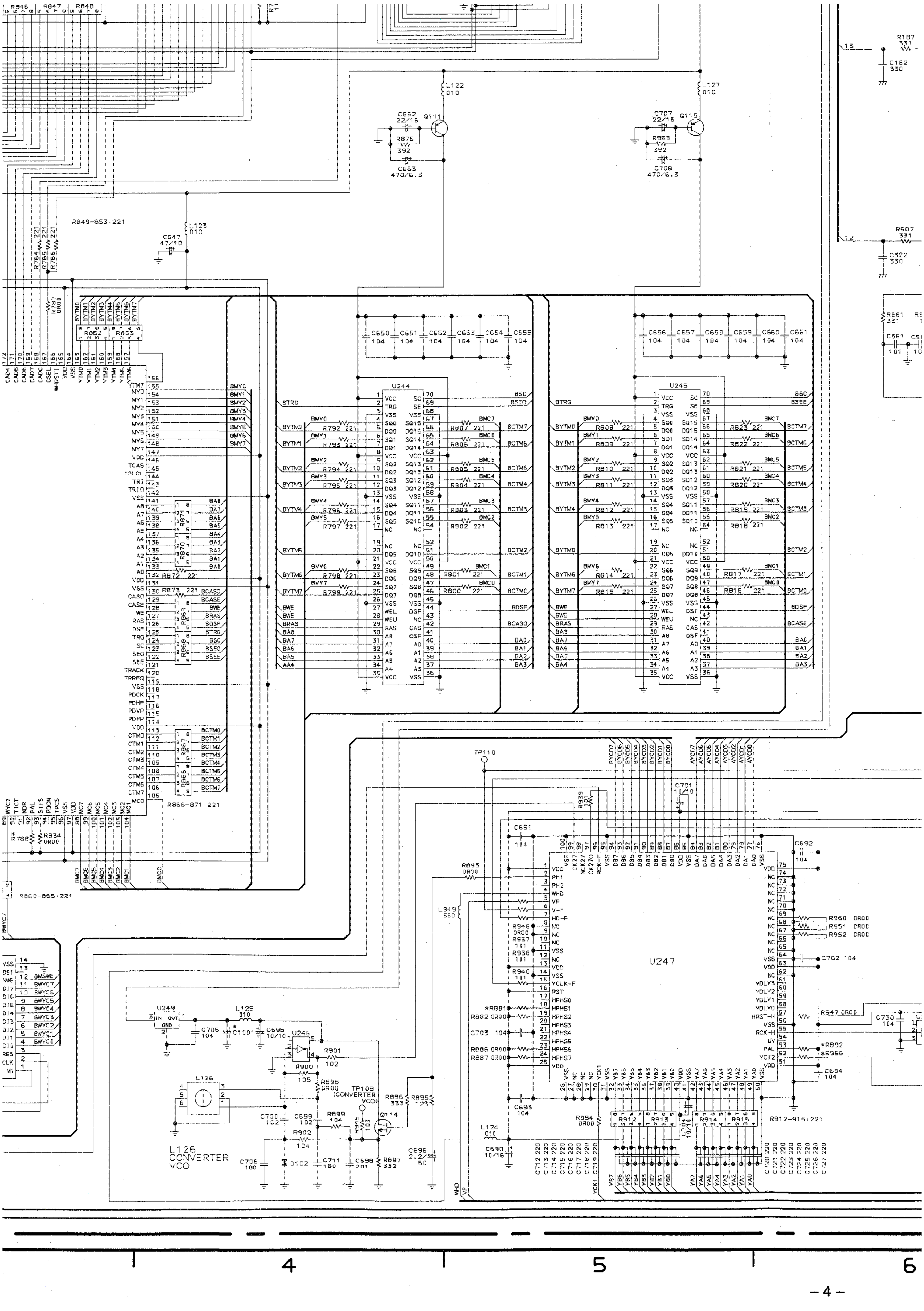
TES2
TES3
Y2CLK
VSS
YCLK1
TCKS
RST
KEY
B
ST
DAT0
DAT1
DAT2
DAT3
DAT4
DAT5
DAT6
DAT7
REG0
REG1
REG2
REG3
REG4
REG5
REG6
REG7
RHS3
RHS2
RHS1
RHS0
YCD7
YCD6
YCD5
YCD4
YCD3
YCD2
YCD1
YCD0
R854 103
R855 103
R856 0R00
R857 0R00
R859 0R00
BYCD7
BYCD6
BYCD5
BYCD4
BYCD3
BYCD2
BYCD1
BYCD0
R879
R909
R879, 909: 221
R942 101
R791 271
R790 0R00
R789 0R00
R860
R861
R862
R863
R864
R865
R874 221
R860~865: 221
R934 0R00
R788*
U242
U243
NWT
NDE3
NDE1
NDE2
NRES
NCLK
NOE
M22
VCC
M1
C648 10/10
C649 10/10
C678 104
C679 10/10
C680 104
C681 104
C682 10/10
C683 104
C684 104
C685 10/10
C686 104
C687 104
C688 10/10
C689 104
RCKF

*marked parts are shown in follows.

*	NTSC	PAL
R513	272	302
R580	OPEN	0R00
R788	OPEN	0R00
R881	0R00	OPEN
R892	OPEN	0R00
R955	751	621
C1001	OPEN	33/10
C1002	OPEN	33/10
C1003	OPEN	33/10
C1004	OPEN	33/10
C1005	OPEN	33/10



R846
R847
R848
L122
010
L127
010
C662
22/16
Q111
R875
392
C663
470/6.3
C707
22/16
Q115
R958
392
C708
470/6.3
R187
331
C162
330
R507
331
C322
330
R661
331
C561
101
R849-853 : 221
L123
010
C647
47/10
R764 221
R765 221
R766 221
R787
0R00
BYTM0
BYTM1
BYTM2
BYTM3
BYTM4
BYTM5
BYTM6
BYTM7
R852
R855
C650 104
C651 104
C652 104
C653 104
C654 104
C655 104
C656 104
C657 104
C658 104
C659 104
C660 104
C661 104
U244
U245
BTRG
BSC
BSEO
BSEE
BMY0
BMY1
BMY2
BMY3
BMY4
BMY5
BMY6
BMY7
BMC0
BMC1
BMC2
BMC3
BMC4
BMC5
BMC6
BMC7
BCTM0
BCTM1
BCTM2
BCTM3
BCTM4
BCTM5
BCTM6
BCTM7
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R793 221
R794 221
R795 221
R796 221
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R811 221
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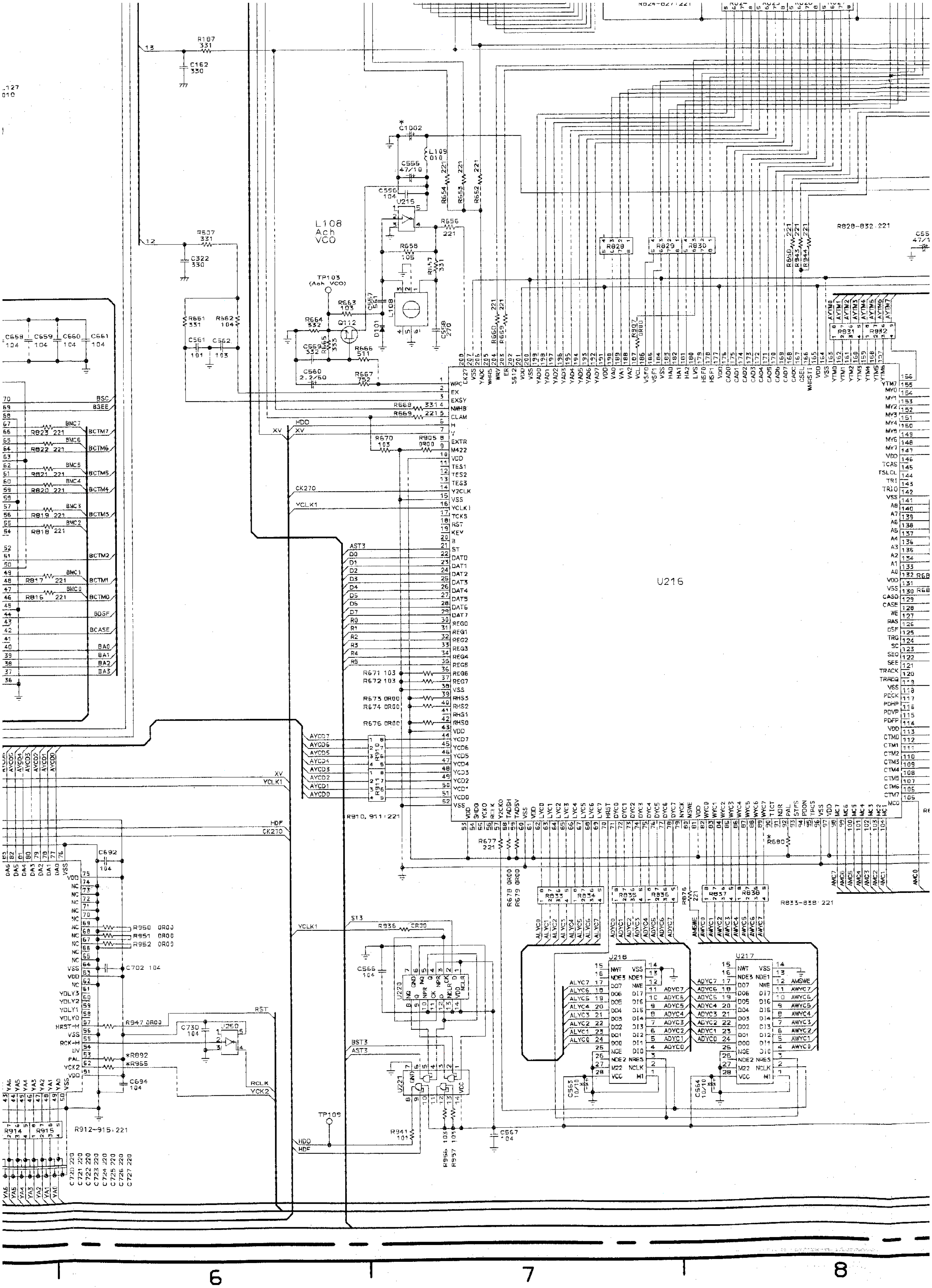
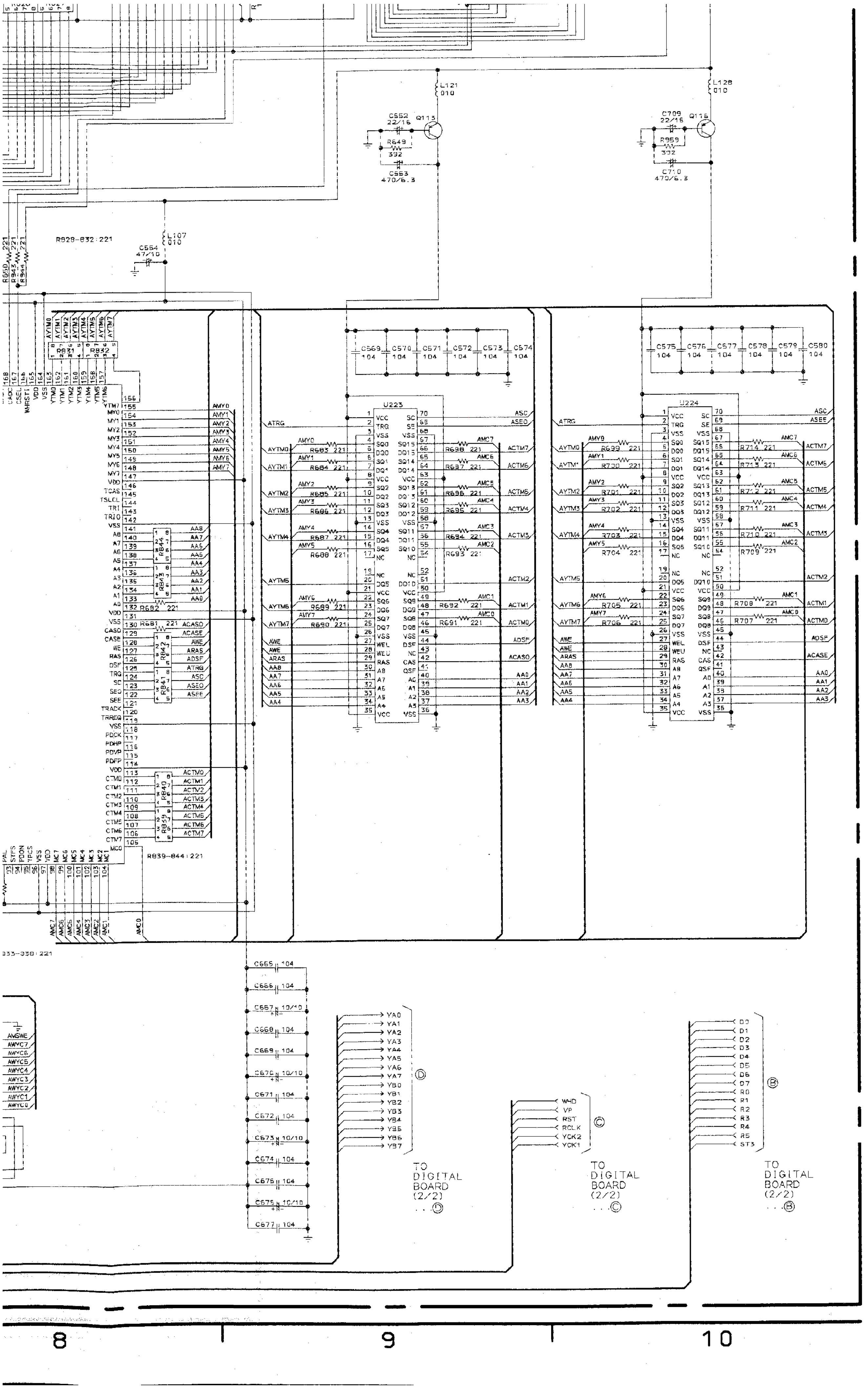
R813 221
R814 221
R815 221
R816 221
R817 221
R818 221
R819 221
R820 221
R821 221
R822 221
R823 221
VCC
TRG
VSS
SQ0
DQ0
SQ1
DQ1
SQ2
DQ2
SQ3
DQ3
SQ4
DQ4
SQ5
DQ5
SQ6
DQ6
SQ7
DQ7
NC
WEL
WEU
RAS
CAS
QSF
DSF
SC
SE
A0
A1
A2
A3
A4
A5
A6
A7
A8
BWE
BRAS
BA0
BA1
BA2
BA3
BA4
BA5
BA6
BA7
BA8
BCASE
BCAS0
BDSF
BCASC
R872 221
R873 221
R866-871 : 221
R860-865 : 221
YTM7
MY0
MY1
MY2
MY3
MY4
MY5
MY6
MY7
VDD
TCAS
T3LCL
TRI
TRIO
CASO
CASE
WE
RAS
DSF
TRG
SC
SEO
SEE
TRACK
TRREG
PDCK
PDHP
PDVP
PDFP
CTM0
CTM1
CTM2
CTM3
CTM4
CTM5
CTM6
CTM7
MC0
R788
R934
0R00
BMC7
BMC6
BMC5
BMC4
BMC3
BMC2
BMC1
BMC0
BWYC7
BMSWE
BWYC6
BWYC5
BWYC4
BWYC3
BWYC2
BWYC1
BWYC0
RES
CLK
MI
TP110
BYCD7
BYCD6
BYCD5
BYCD4
BYCD3
BYCD2
BYCD1
BYCD0
AYCD7
AYCD6
AYCD5
AYCD4
AYCD3
AYCD2
AYCD1
AYCD0
C701
10/10
R939
101
C691
104
C692
104
R893
0R00
L949
560
R946
0R00
R937
101
R938
101
R940
101
U247
PH1
PH2
WHD
VP
V-F
HD-F
YCLK-F
RST
HPHS0
HPHS1
HPHS2
HPHS3
HPHS4
HPHS5
HPHS6
HPHS7
YDLY3
YDLY2
YDLY1
YDLY0
HRST-H
RCK-H
UV
PAL
YCK2
R950 0R00
R951 0R00
R952 0R00
C702 104
R947 0R00
C730
104
*R892
*R956
C694
104
*R881
R882 0R00
C703 104
R886 0R00
R887 0R00
C693
104
R954
0R00
R912
R913
R914
R915
R912-915 : 221
L124
010
C690
10/16
C712 220
C713 220
C714 220
C715 220
C716 220
C717 220
C718 220
C719 220
C720 220
C721 220
C722 220
C723 220
C724 220
C725 220
C726 220
C727 220
C704
10/16
YCK1
YB7
YB6
YB5
YB4
YB3
YB2
YB1
YB0
YA7
YA6
YA5
YA4
YA3
YA2
YA1
YA0
WHD
VP
U249
IN
OUT
GND
L125
010
C705
104
C1001
C695
10/10
U246
R901
102
R900
105
R898
0R00
TP108
(CONVERTER VCO)
L126
CONVERTER VCO
C700
102
C699
102
R899
104
R902
104
R945
101
Q114
R896
333
R895
123
C696
2.2/50
C706
100
D102
C711
150
C698
201
R897
332
4
5
6

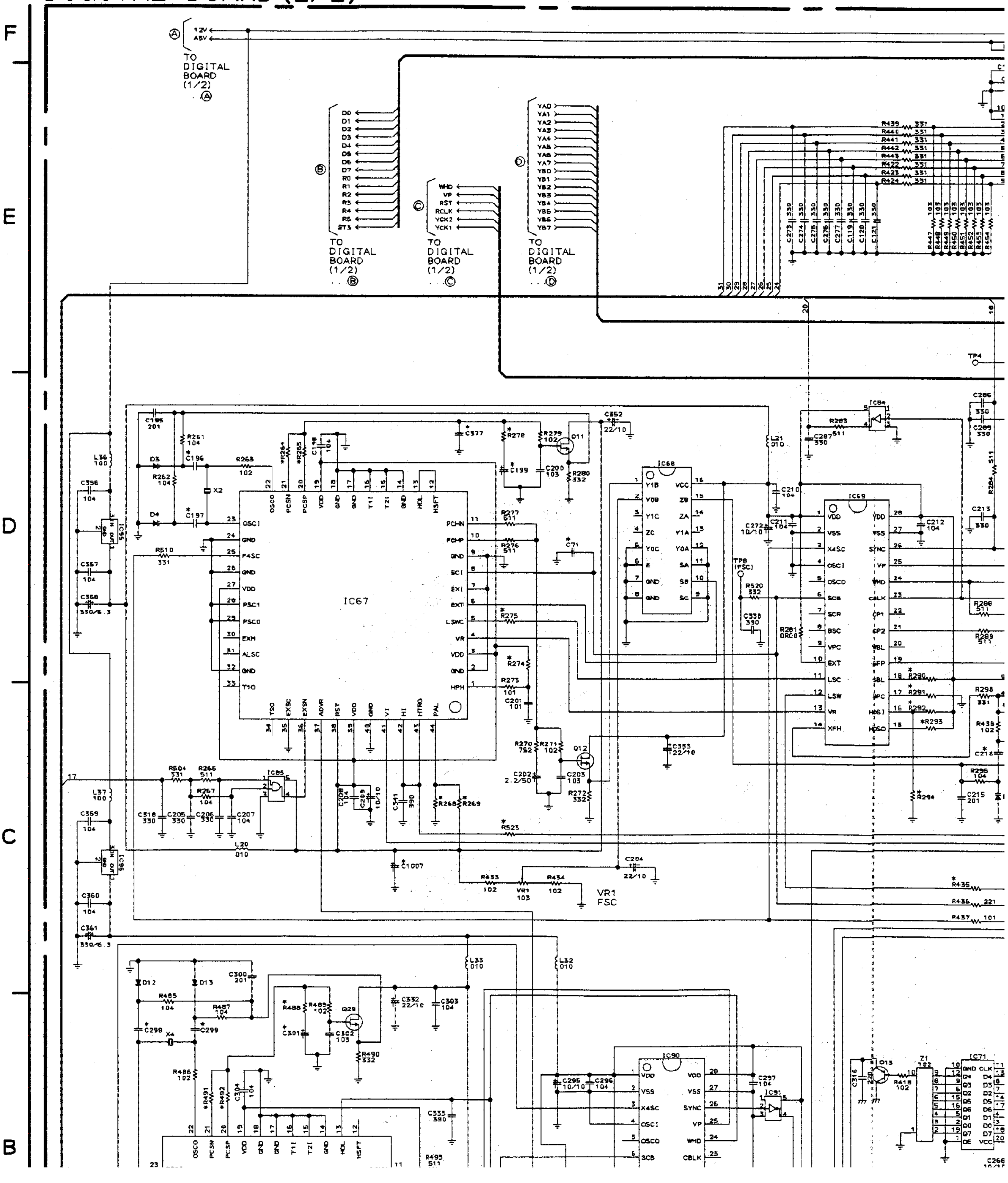

U216
L108
Ach
VCO
TP103
(Ach VCO)
U215
Q112
D101
C1002
L109
010
C555
47/10
C550
104
R654
R653
R652
221
R656
221
R658
105
R657
331
R663
103
R664
332
R665
333
C569
332
R666
511
C560
2.2/50
R667
752
C557
561
C558
270
R187
331
C162
330
R507
331
C322
330
R661
331
R662
104
C561
101
C562
103
C658
C659
C660
C661
104
R823 221
R822 221
R821 221
R820 221
R819 221
R818 221
R817 221
R816 221
BMC7
BMC6
BMC5
BMC4
BMC3
BMC2
BMC1
BMC0
BCTM7
BCTM6
BCTM5
BCTM4
BCTM3
BCTM2
BCTM1
BCTM0
BSC
BSEE
BDSF
BCASE
BA0
BA1
BA2
BA3
R668 331
R669 221
R670 103
R905 0R00
HDD
XV
CK270
YCLK1
AST3
D0
D1
D2
D3
D4
D5
D6
D7
R0
R1
R2
R3
R4
R5
R671 103
R672 103
R673 0R00
R674 0R00
R676 0R00
AYCD7
AYCD6
AYCD5
AYCD4
AYCD3
AYCD2
AYCD1
AYCD0
R910
R911
R910, 911 : 221
WPC
EX
EXSY
NWHB
CLAM
EXTR
M422
VDD
TES1
TES2
TES3
Y2CLK
VSS
YCLK1
TCKS
RST
KEV
DAT0
DAT1
DAT2
DAT3
DAT4
DAT5
DAT6
DAT7
REG0
REG1
REG2
REG3
REG4
REG5
REG6
REG7
RHS3
RHS2
RHS1
RHS0
YCD7
YCD6
YCD5
YCD4
YCD3
YCD2
YCD1
YCD0
R828
R829
R830
R828–832 : 221
R650
R943
R944
R907
0R00
R660
R659
221
R931
R932
AYTM0
AYTM1
AYTM2
AYTM3
AYTM4
AYTM5
AYTM6
AYTM7
YTM7
MY0
MY1
MY2
MY3
MY4
MY5
MY6
MY7
TCAS
TSLCL
TRI
TRI0
CASO
CASE
WE
RAS
DSF
TRG
SC
SEO
SEE
TRACK
TRREQ
PCCK
PDHP
PDVP
PDFP
CTM0
CTM1
CTM2
CTM3
CTM4
CTM5
CTM6
CTM7
MC0
R677
221
R678 0R00
R679 0R00
R680
R876
221
R833–838 : 221
R834
R835
R836
R837
R838
ALYC0
ALYC1
ALYC2
ALYC3
ALYC4
ALYC5
ALYC6
ALYC7
ADYC0
ADYC1
ADYC2
ADYC3
ADYC4
ADYC5
ADYC6
ADYC7
AWYC0
AWYC1
AWYC2
AWYC3
AWYC4
AWYC5
AWYC6
AWYC7
AMSWE
AMC0
AMC1
AMC2
AMC3
AMC4
AMC5
AMC6
AMC7
U218
U217
NWT
NDE3
NDE1
NWE
NOE
NDE2
NRES
M22
NCLK
VCC
M1
C565
10/10
C564
10/10
U220
U221
U250
C566
104
S13
R936
0R30
BST3
AST3
TP109
R941
101
R956
R957
103
C567
104
HDD
HDF
C692
104
C702 104
C730
104
C694
104
R950 0R00
R951 0R00
R952 0R00
R947 0R00
*R892
*R955
RST
RCLK
YCK2
YOLY3
YOLY2
YOLY1
YOLY0
HRST-H
RCK-H
UV
PAL
R914
R915
R912–915 : 221
C720 220
C721 220
C722 220
C723 220
C724 220
C725 220
C726 220
C727 220
YA6
YA5
YA4
YA3
YA2
YA1
YA0
DA6
DA5
DA4
DA3
DA2
DA1
DA0
6
7
8


U223
U224
L121 010
L128 010
L107 010
Q113
Q116
C552 22/16
C709 22/16
R649 392
R959 392
C553 470/6.3
C710 470/6.3
C564 47/10
R828-832:221
R839-844:221
C569 104
C570 104
C571 104
C572 104
C573 104
C574 104
C575 104
C576 104
C577 104
C578 104
C579 104
C580 104
C665 104
C666 104
C667 10/10
C668 104
C669 104
C670 10/10
C671 104
C672 104
C673 10/10
C674 104
C675 104
C676 10/10
C677 104
YA0
YA1
YA2
YA3
YA4
YA5
YA6
YA7
YB0
YB1
YB2
YB3
YB4
YB5
YB6
YB7
Ⓓ
WHD
VP
RST
RCLK
YCK2
YCK1
Ⓒ
D0
D1
D2
D3
D4
D5
D6
D7
R0
R1
R2
R3
R4
R5
ST3
Ⓑ
TO DIGITAL BOARD (2/2) ...Ⓓ
TO DIGITAL BOARD (2/2) ...Ⓒ
TO DIGITAL BOARD (2/2) ...Ⓑ
8
9
10

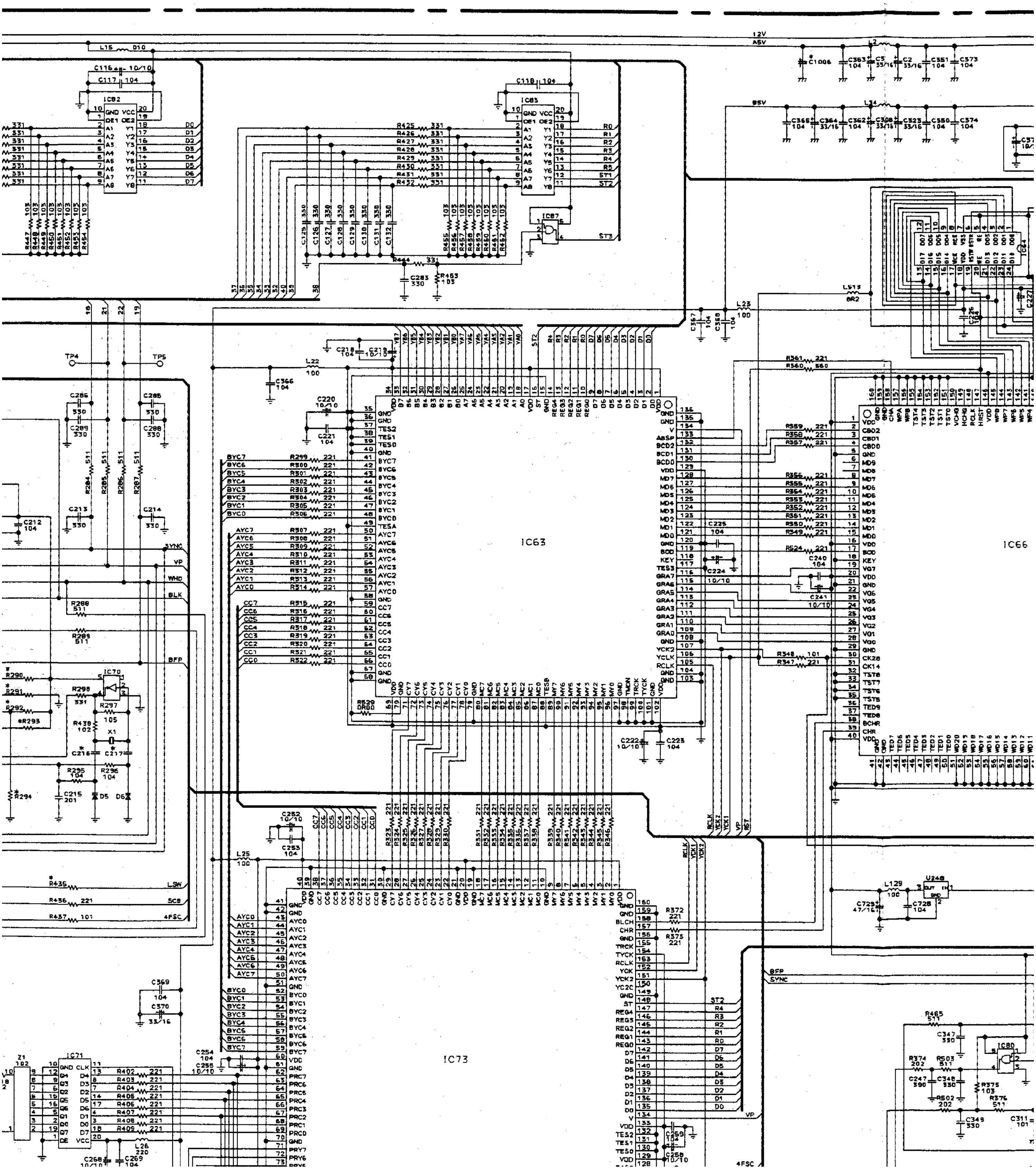
Q7	G6
Q8	G6
Q23	G2
Q24	G2
Q25	G7
Q26	G7
Q30	G6
Q31	G1
Q110	C2
Q111	D4
Q112	C6
Q113	D9
Q114	A4
Q115	D5
Q116	D10
D100	C2
D101	C7
D102	A4

SCHE

DIGITAL BOARD (2/2)

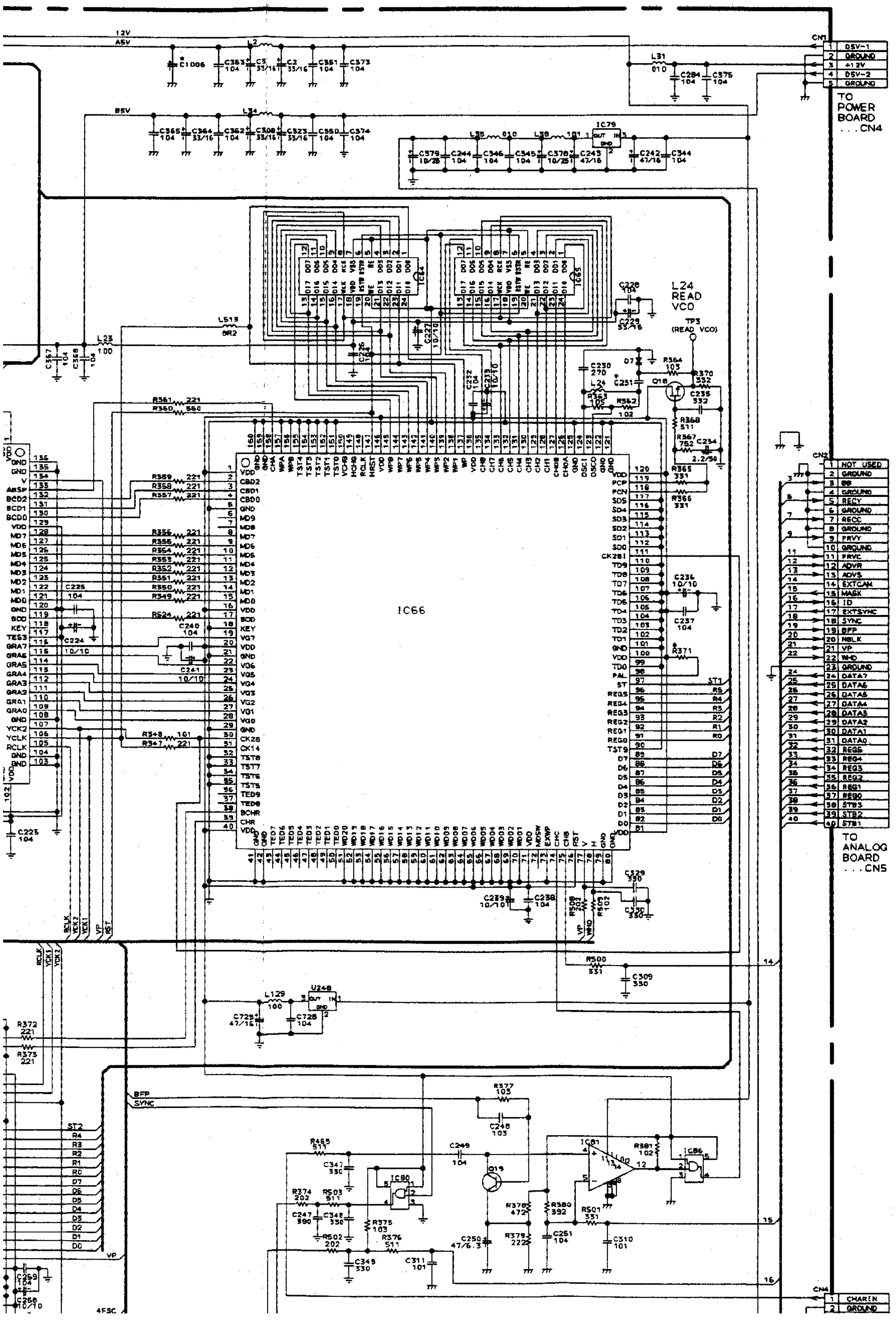

F
E
D
C
B
Ⓐ
12V
A5V
TO DIGITAL BOARD (1/2) Ⓐ
Ⓑ
D0
D1
D2
D3
D4
D5
D6
D7
R0
R1
R2
R3
R4
R5
ST3
TO DIGITAL BOARD (1/2) Ⓑ
Ⓒ
WHD
VP
RST
RCLK
YCK2
YCK1
TO DIGITAL BOARD (1/2) Ⓒ
Ⓓ
YA0
YA1
YA2
YA3
YA4
YA5
YA6
YA7
YB0
YB1
YB2
YB3
YB4
YB5
YB6
YB7
TO DIGITAL BOARD (1/2) Ⓓ
IC67
IC68
IC69
IC84
IC85
IC90
IC91
IC95
IC96
IC71
Q11
Q12
Q13
Q29
X2
X4
Z1
TP4
TP8 (FSC)
VR1 FSC
L20
L21
L32
L33
L36
L37
C1007
R439 331
R440 331
R441 331
R442 331
R443 331
R422 331
R423 331
R424 331
R447
R448
R449
R450
R451
R452
R453
R454
C273
C274
C275
C276
C277
C119
C120
C121
OSCO
PCSN
PCSP
VDD
GND
T11
T21
HDL
HSFT
OSCI
F4SC
PSC1
PSCO
EXH
ALSC
T1O
T2O
EXSC
EXSN
ADVR
RST
VI
HI
HTRG
PAL
PCHN
PCHP
SCI
EXI
EXT
LSWC
VR
HPH
Y1B
Y0B
Y1C
ZC
Y0C
E
ZB
ZA
Y1A
Y0A
SA
SB
SC
VCC
VSS
X4SC
OSCI
SCB
SCR
BSC
VPC
LSC
LSW
XFH
SYNC
WHD
CBLK
CP1
CP2
YBL
BFP
SBL
HPC
HOSI
HDSO
GND
CLK
OE
R504 331
R266 511
R267 104
R510 331
R263 102
R261 104
R262 104
R277 511
R276 511
R275
R274
R273 101
R270 752
R271 102
R272 332
R278
R279 102
R280 332
R283 511
R284 511
R288 511
R289 511
R290
R291
R292
R293
R294
R295 104
R298 331
R438 102
R435
R436 221
R437 101
R433 102
R434 102
R523
R520 332
R281 0R08
R465 104
R486 102
R487 104
R488
R489 102
R490 332
R491
R492
R493 511
R418 102
R264
R265
R268
R269
VR1 103
C195 201
C196
C197
C198
C199
C200 103
C201 101
C202 2.2/50
C203 103
C204 22/10
C205 330
C206 330
C207 104
C208 104
C209 10/10
C210 104
C211 104
C212 104
C213 330
C214
C215 201
C266
C286 330
C287 330
C289 330
C272 10/10
C295 10/10
C296 104
C297 104
C298
C299
C300 201
C301
C302 103
C303 104
C304 104
C316
C318 330
C332 22/10
C333 330
C336 330
C341 390
C352 22/10
C353 22/10
C356 104
C357 104
C358 330/6.3
C359 104
C360 104
C361 330/6.3
C377
C71
D3
D4
D12
D13

SCHEMATIC DIAGRAM OF DIGITAL BOARD (2/2)



IC63
IC66
IC73
IC82
IC83
IC87
IC70
IC71
IC80
U248
12V
A5V
B5V
SYNC
VP
WHD
BLK
BFP
LSW
SCB
4FSC
TP4
TP5

)

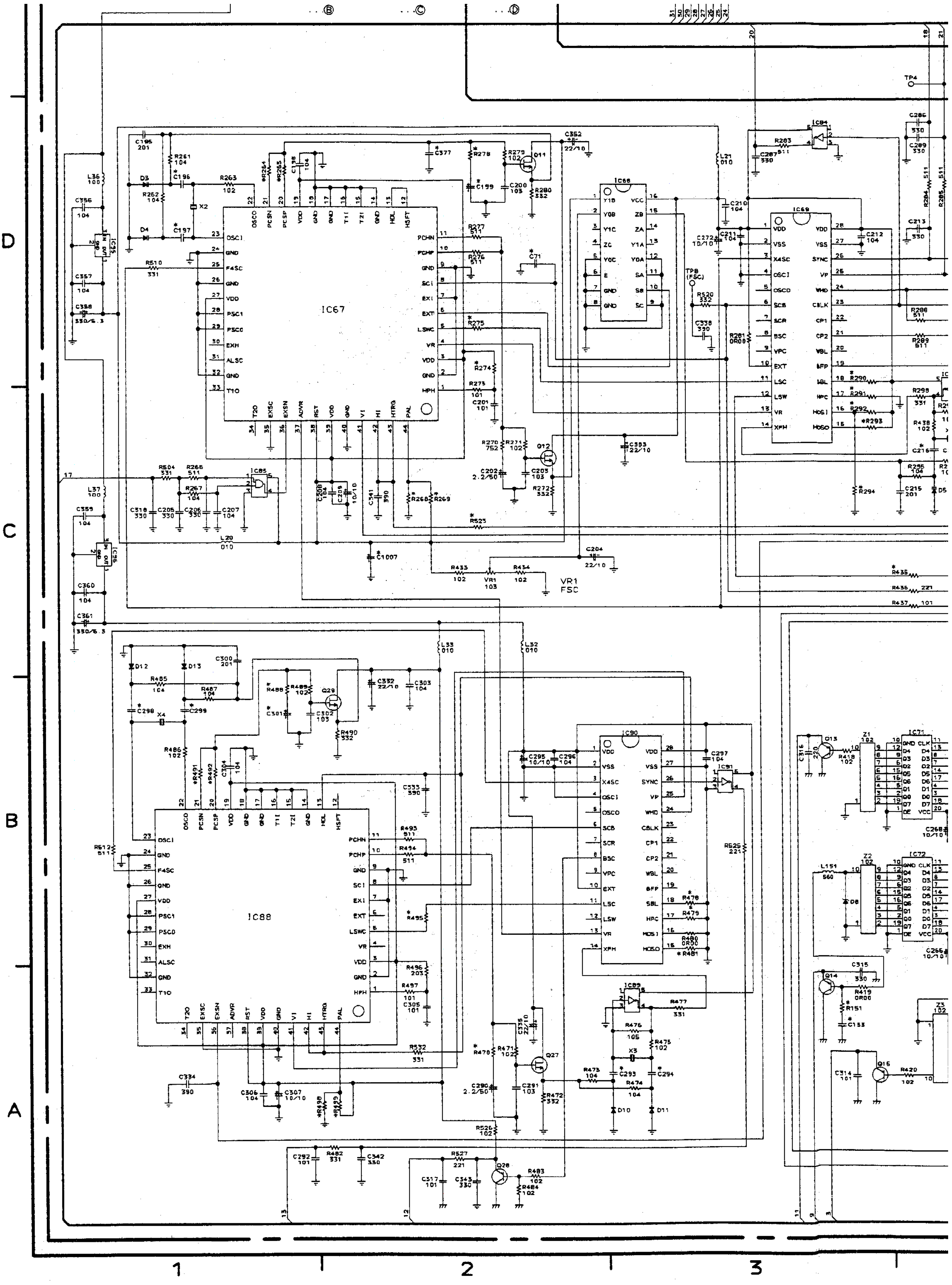


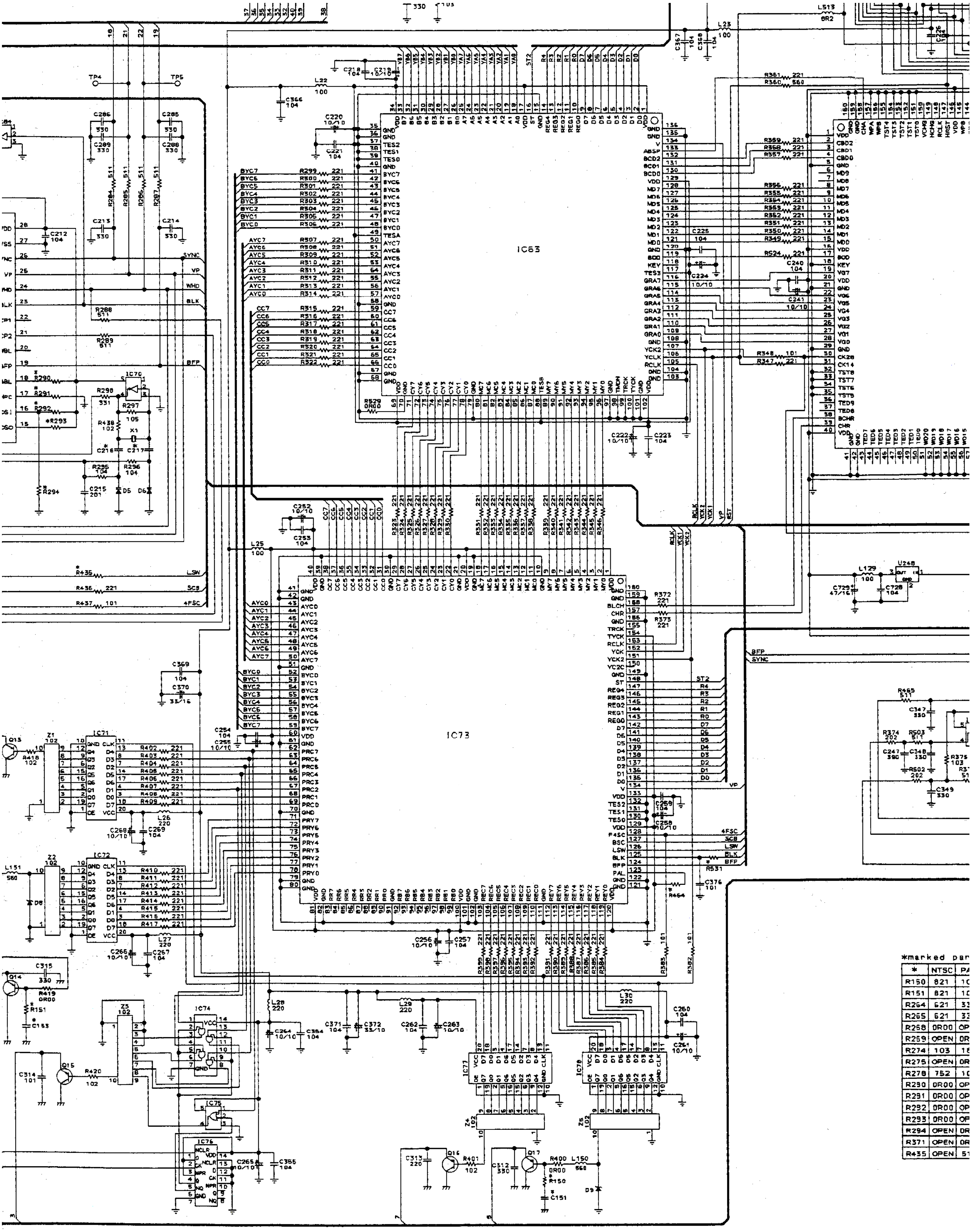
CN1
1 DSV-1
2 GROUND
3 +12V
4 DSV-2
5 GROUND
TO POWER BOARD . . . CN4
12V
A5V
B5V
IC79
IC63
IC64
IC65
L24 READ VCO
TP3 (READ VCO)
Q18
IC66
CN2
1 NOT USED
2 GROUND
3 BB
4 GROUND
5 RECY
6 GROUND
7 RECC
8 GROUND
9 PRVY
10 GROUND
11 PRVC
12 ADVR
13 ADVS
14 EXTCAM
15 MASK
16 ID
17 EXTSYNC
18 SYNC
19 BFP
20 NBLK
21 VP
22 WHD
23 GROUND
24 DATA7
25 DATA6
26 DATA5
27 DATA4
28 DATA3
29 DATA2
30 DATA1
31 DATA0
32 REG5
33 REG4
34 REG3
35 REG2
36 REG1
37 REG0
38 STB3
39 STB2
40 STB1
TO ANALOG BOARD . . . CN5
U248
IC80
IC81
IC86
Q19
CN4
1 CHARIN
2 GROUND
4FSC

<Index>

DIGITAL BOARD (2/2)

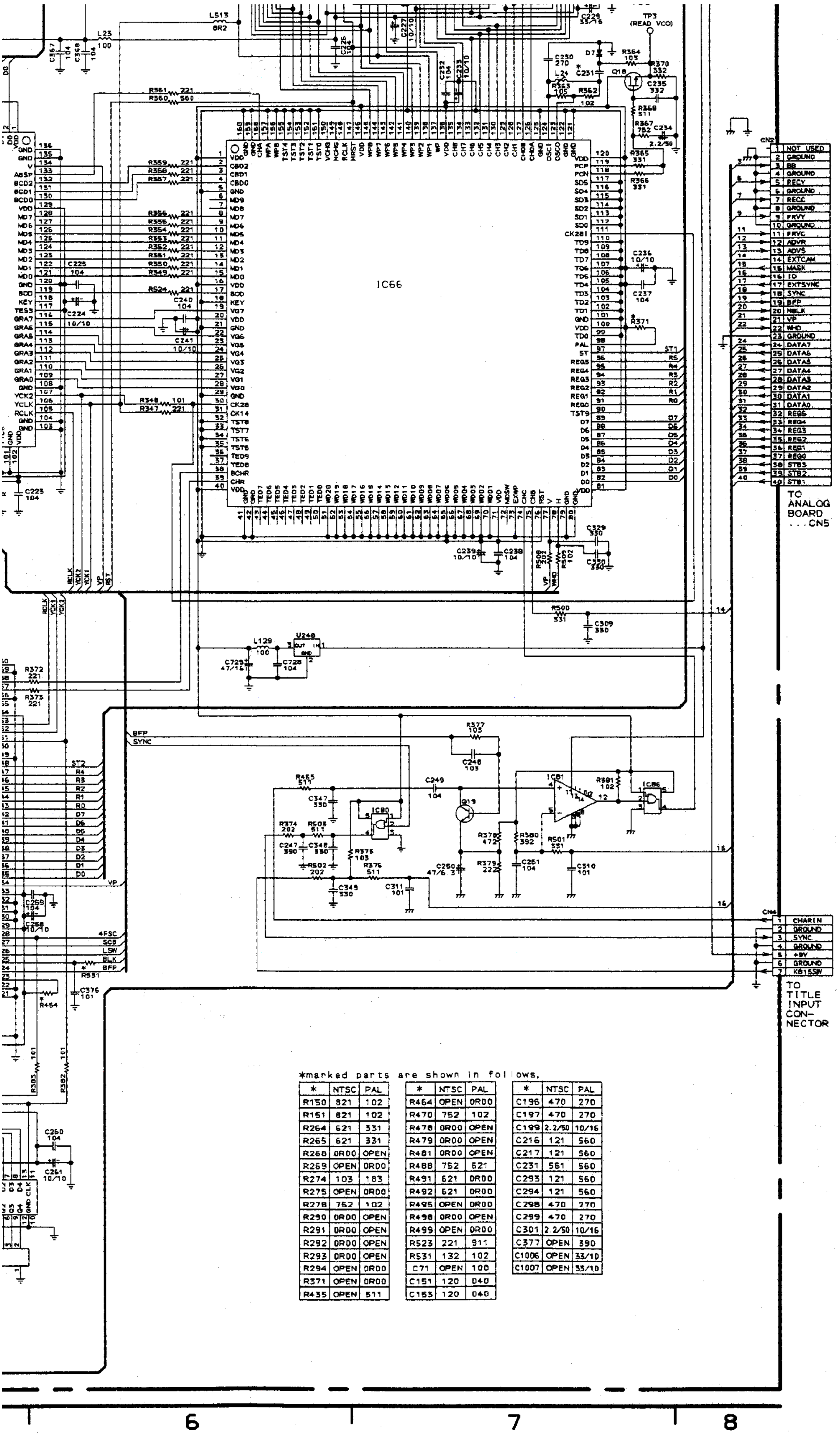
IC63	D5
IC64	E7
IC65	E7
IC66	D7
IC67	D2
IC68	D3
IC69	D3
IC70	C4
IC71	B4
IC72	B4
IC73	B5
IC74	A4
IC75	A4
IC76	A4
IC77	A5
IC78	A5
IC79	E7
IC80	B7
IC81	B7
IC82	E4
IC83	E5
IC84	D3
IC85	C1
IC86	B7
IC87	E5
IC88	B1
IC89	A3
IC90	B3
IC91	B3
IC95	D1
IC96	C1
U248	C6
Q11	D2
Q12	C2
Q13	B3
Q14	A3
Q15	A3
Q16	A5
Q17	A5
Q18	E7
Q19	B7
Q27	A2
Q28	A2
Q29	B2
D3	D1
D4	D1
D5	C4
D6	C4
D7	E7
D8	B3
D9	A5
D10	A3
D11	A3
D12	C1
D13	C1


B
C
D
IC67
IC88
IC68
IC69
IC90
IC84
IC85
IC89
IC91
IC95
IC96
IC71
IC72
Q11
Q12
Q13
Q14
Q15
Q27
Q28
Q29
X2
X3
X4
VR1
FSC
TP4
TP8
(FSC)
L20
L21
L32
L33
L36
L37
L151
Z1
Z2
Z3
OSCO
PCSN
PCSP
VDD
GND
T1I
T2I
HOL
HSFT
OSCI
F4SC
PSC1
PSC0
EXH
ALSC
T1O
T2O
EXSC
EXSN
ADVR
RST
VI
HI
HTRG
PAL
PCHN
PCHP
SCI
EXI
EXT
LSWC
VR
HPH
Y1B
Y0B
Y1C
ZC
Y0C
E
ZB
ZA
Y1A
Y0A
SA
SB
SC
VCC
VSS
X4SC
SCB
SCR
BSC
VPC
LSC
LSW
XFH
SYNC
VP
WHD
CBLK
CP1
CP2
WBL
BFP
SBL
HPC
HOS1
HOSO
CLK
OE
1
2
3
A


IC63
IC73
IC70
IC71
IC72
IC74
IC75
IC76
IC77
IC78
U248
Z1
Z2
Z3
Z4
Z5
Q13
Q14
Q15
Q16
Q17
TP4
TP5
SYNC
VP
WHD
BLK
BFP
LSW
SCB
4FSC
RCLK
YCK2
YCK1
RST
4
5
6

*marked par

*	NTSC	PA
R150	821	1
R151	821	1
R264	621	3
R265	621	3
R268	0R00	OP
R269	OPEN	0R
R274	103	1
R275	OPEN	0R
R278	752	1
R290	0R00	OP
R291	0R00	OP
R292	0R00	OP
R293	0R00	OP
R294	OPEN	0R
R371	OPEN	0R
R435	OPEN	51


IC66
IC80
IC81
IC86
U248
Q18
Q19
TP3 (READ VCO)
CN2
1 NOT USED
2 GROUND
3 BB
4 GROUND
5 RECY
6 GROUND
7 RECC
8 GROUND
9 FRVY
10 GROUND
11 FRVC
12 ADVR
13 ADVS
14 EXTCAM
15 MASK
16 ID
17 EXTSYNC
18 SYNC
19 BFP
20 NBLK
21 VP
22 WHD
23 GROUND
24 DATA7
25 DATA6
26 DATA5
27 DATA4
28 DATA3
29 DATA2
30 DATA1
31 DATA0
32 REG5
33 REG4
34 REG3
35 REG2
36 REG1
37 REG0
38 STB3
39 STB2
40 STB1
TO ANALOG BOARD ...CN5
CN4
1 CHARIN
2 GROUND
3 SYNC
4 GROUND
5 +9V
6 GROUND
7 KB1SSW
TO TITLE INPUT CON-NECTOR
6
7
8

*marked parts are shown in follows.

*	NTSC	PAL
R150	821	102
R151	821	102
R264	621	331
R265	621	331
R268	0R00	OPEN
R269	OPEN	0R00
R274	103	183
R275	OPEN	0R00
R278	752	102
R290	0R00	OPEN
R291	0R00	OPEN
R292	0R00	OPEN
R293	0R00	OPEN
R294	OPEN	0R00
R371	OPEN	0R00
R435	OPEN	511

*	NTSC	PAL
R464	OPEN	0R00
R470	752	102
R478	0R00	OPEN
R479	0R00	OPEN
R481	0R00	OPEN
R488	752	621
R491	621	0R00
R492	621	0R00
R495	OPEN	0R00
R498	0R00	OPEN
R499	OPEN	0R00
R523	221	911
R531	132	102
C71	OPEN	100
C151	120	040
C153	120	040

*	NTSC	PAL
C196	470	270
C197	470	270
C199	2.2/50	10/16
C216	121	560
C217	121	560
C231	561	560
C293	121	560
C294	121	560
C298	470	270
C299	470	270
C301	2.2/50	10/16
C377	OPEN	390
C1006	OPEN	33/10
C1007	OPEN	33/10

IC75	A4
IC76	A4
IC77	A5
IC78	A5
IC79	E7
IC80	B7
IC81	B7
IC82	E4
IC83	E5
IC84	D3
IC85	C1
IC86	B7
IC87	E5
IC88	B1
IC89	A3
IC90	B3
IC91	B3
IC95	D1
IC96	C1
U248	C6
Q11	D2
Q12	C2
Q13	B3
Q14	A3
Q15	A3
Q16	A5
Q17	A5
Q18	E7
Q19	B7
Q27	A2
Q28	A2
Q29	B2
D3	D1
D4	D1
D5	C4
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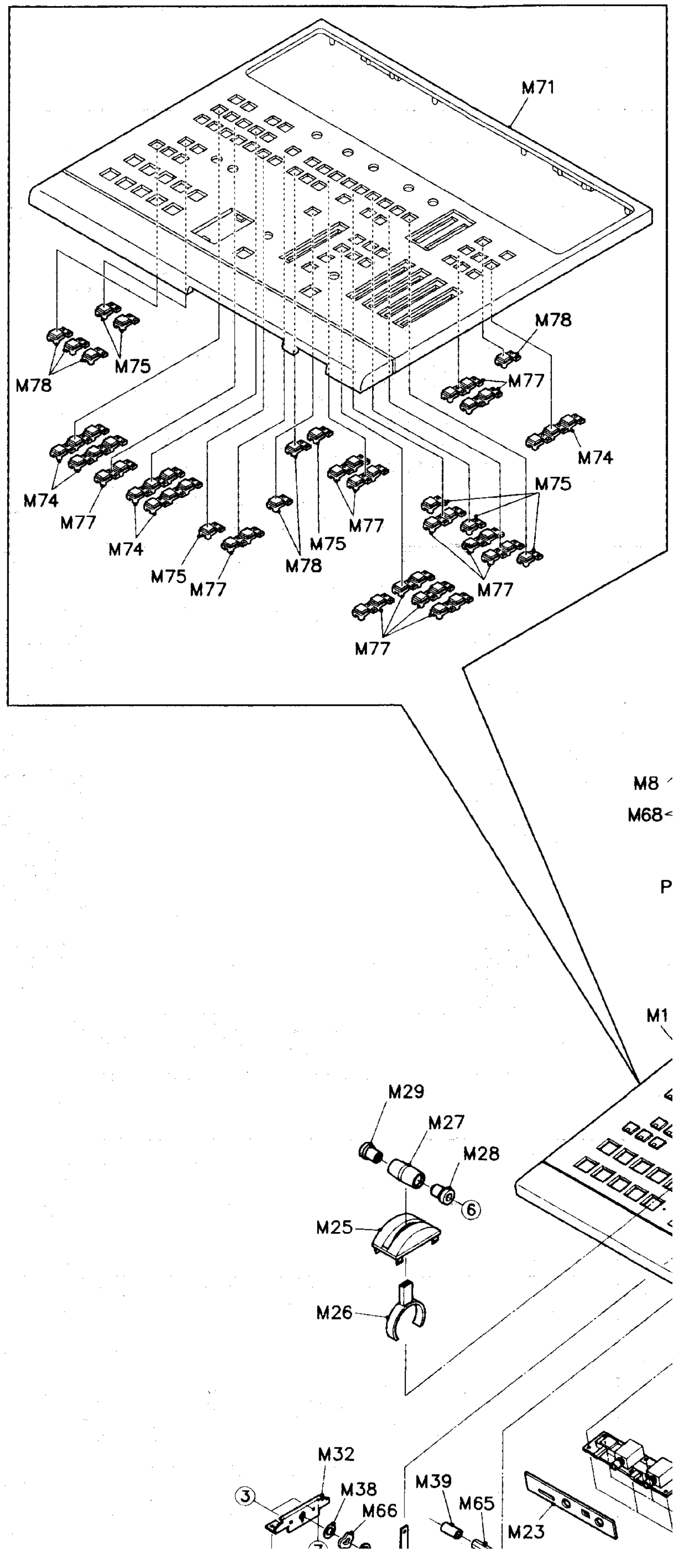
D13	C1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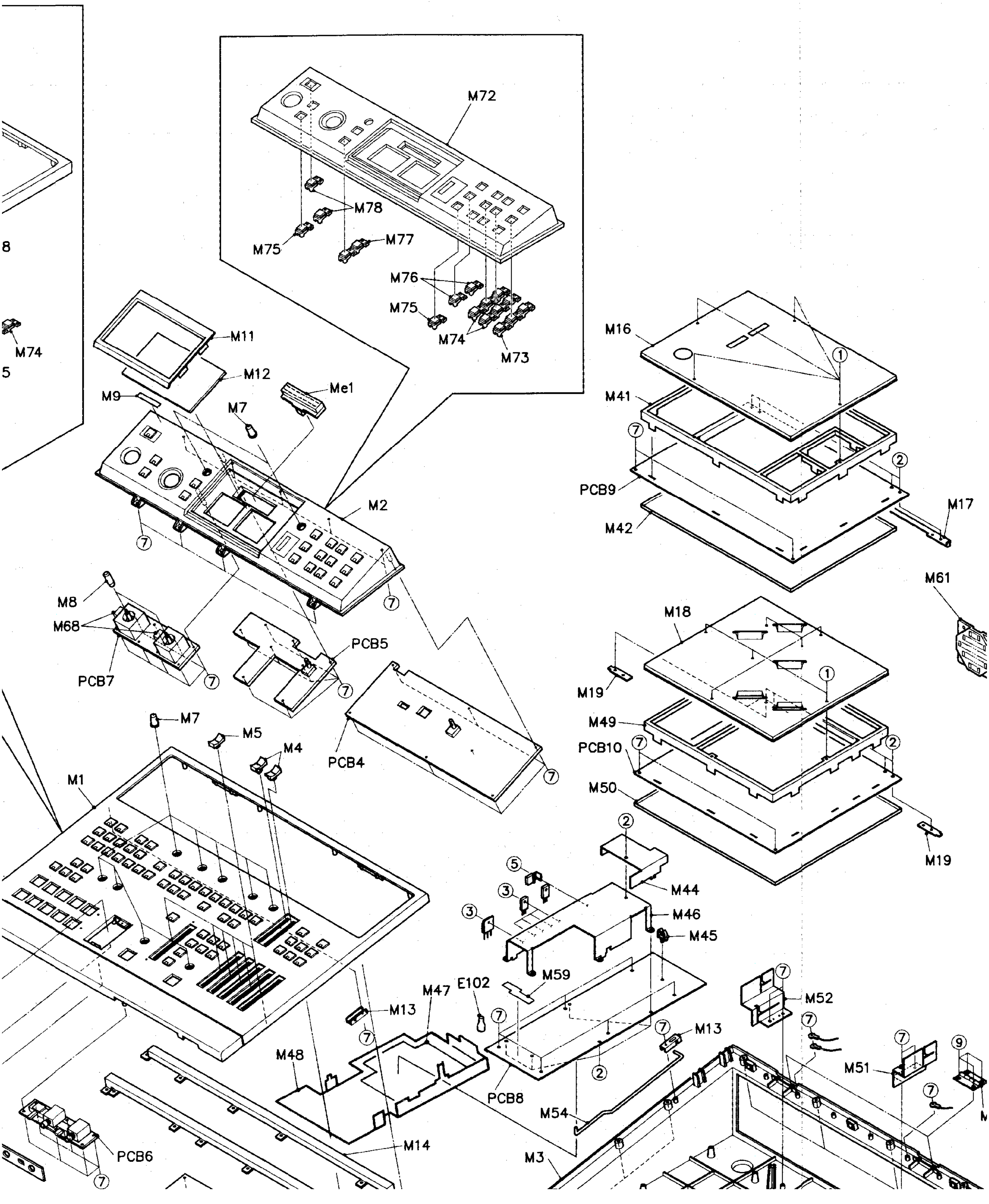
M23

EXPLODED VIEW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⑦
M8
M68
PCB7
PCB5
PCB4
M7
M5
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M16
①
M41
⑦
②
PCB9
M42
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M61
M18
M19
①
M49
PCB10
M50
M19
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M44
⑤
③
③
M46
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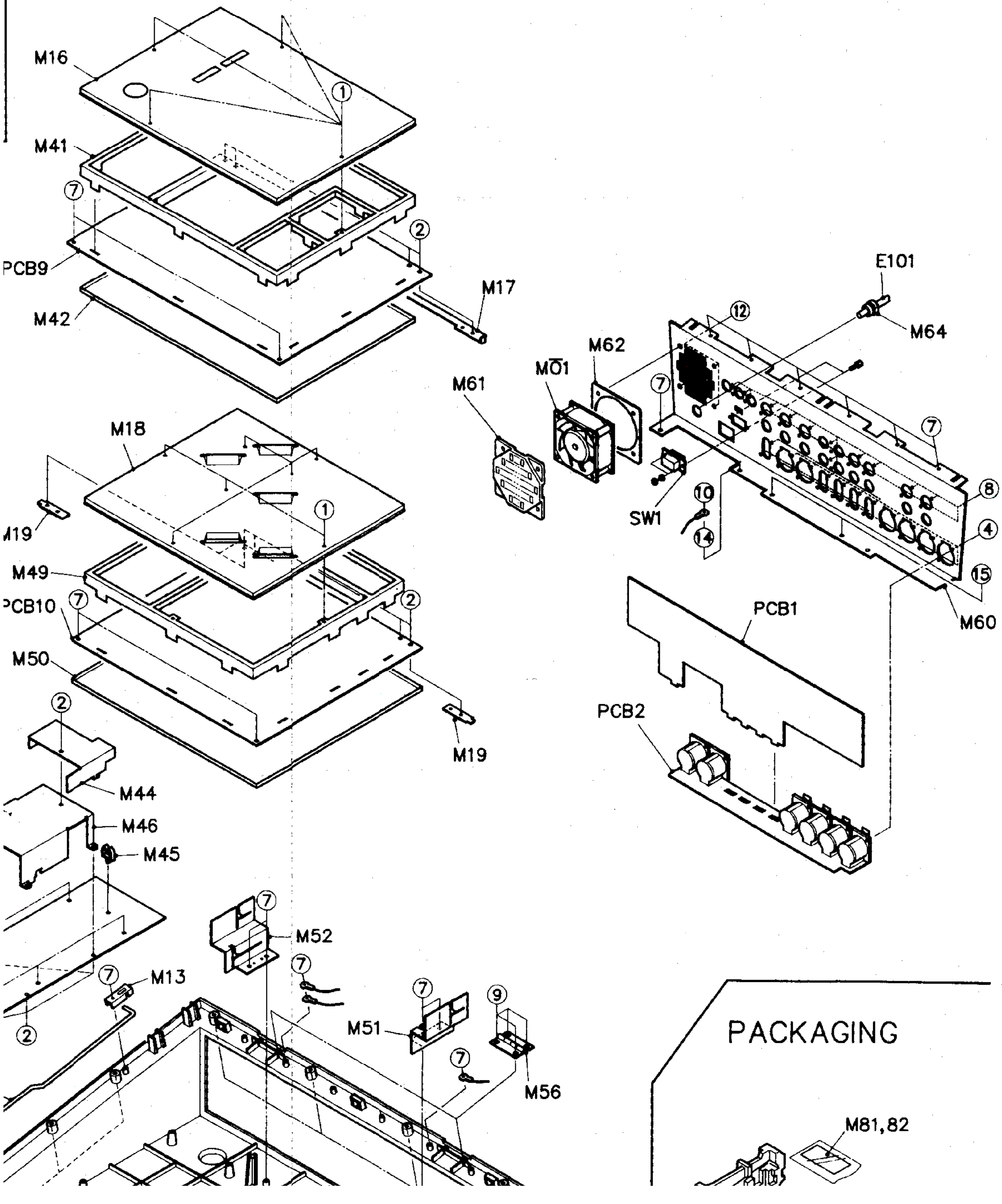
PCB6



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⑦
SW1
⑩
⑭
⑧
④
⑮
M60
M18
①
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M49
PCB10
⑦
②
M50
M19
PCB1
PCB2
②
M44
M46
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M51
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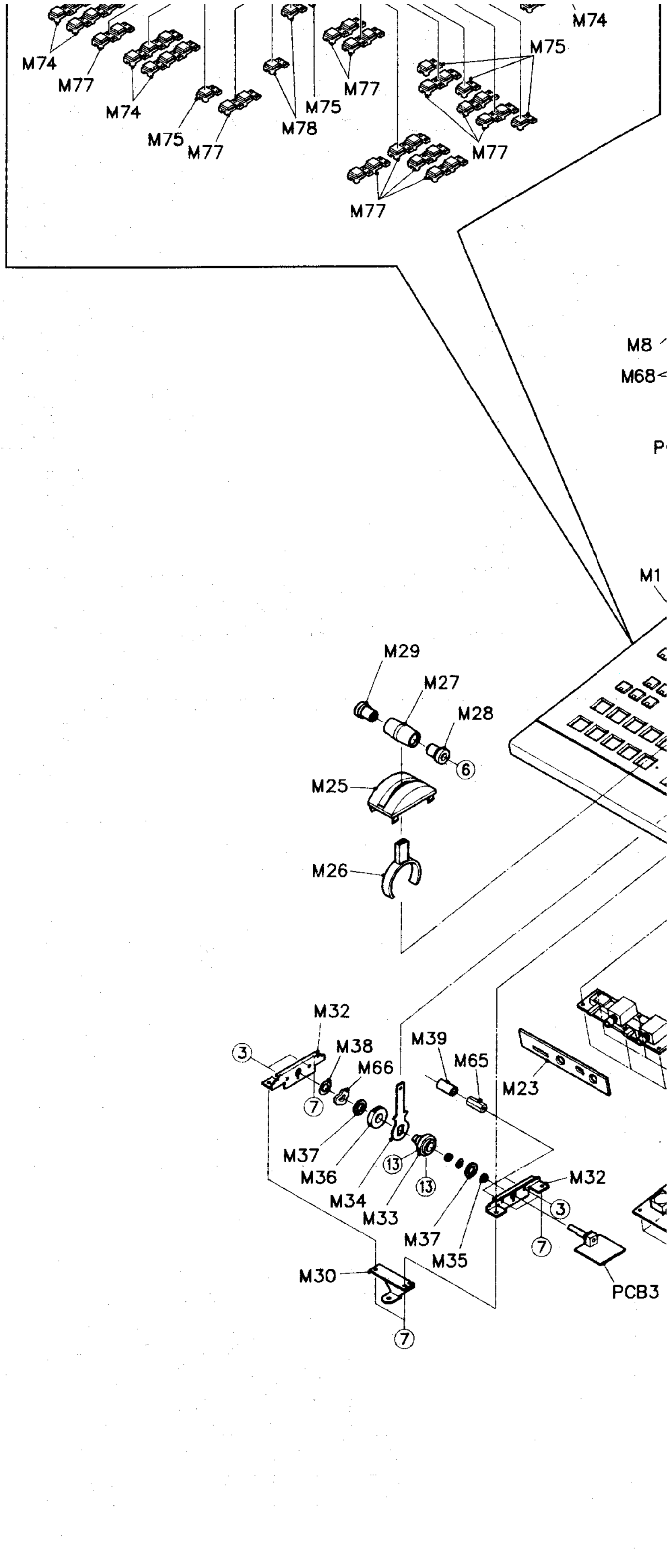
M56
PACKAGING
M81,82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M1
M29
M27
M28
⑥
M25
M26
M32
③
M38
M66
M39
M65
M23
⑦
M37
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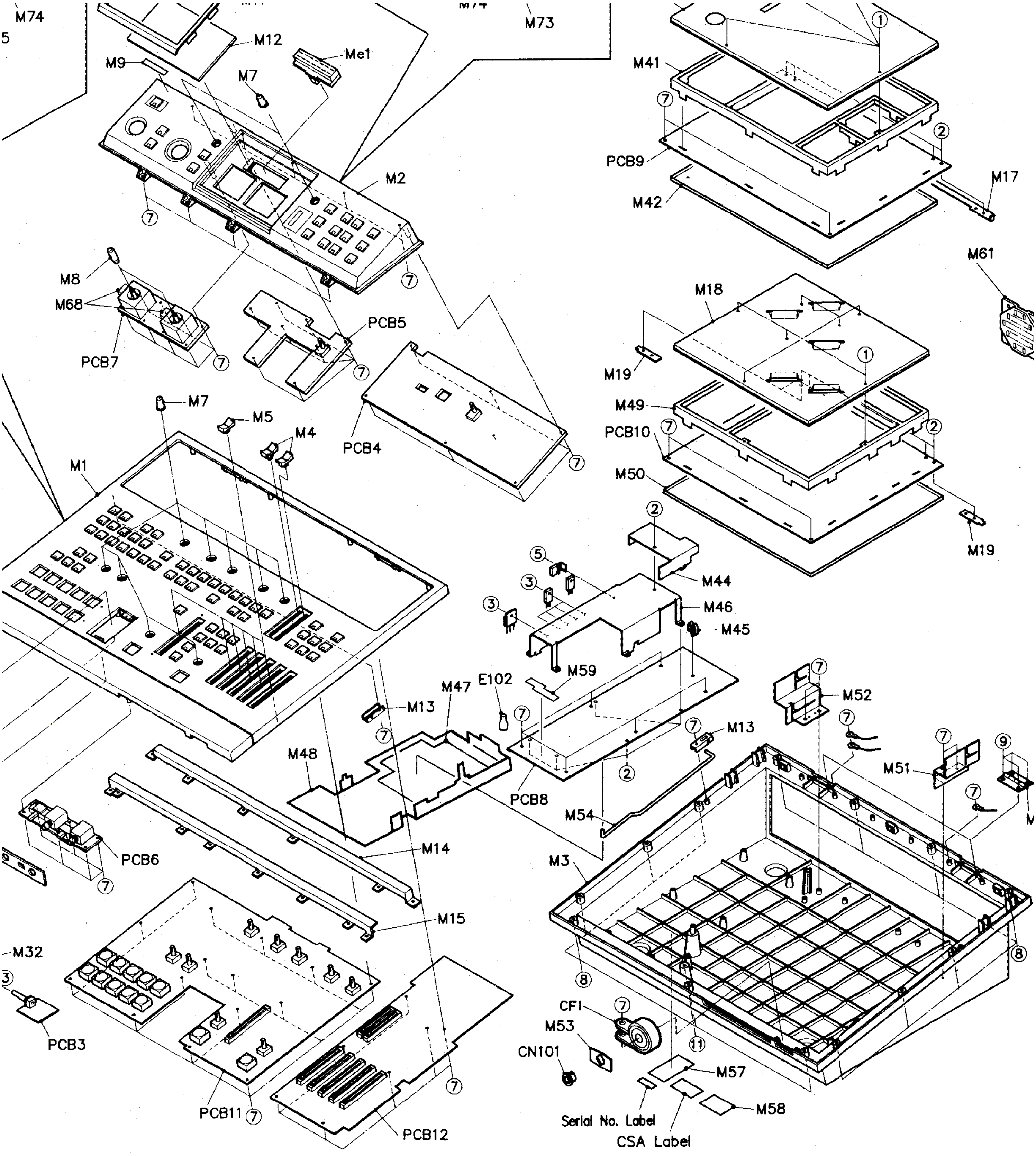
⑦
PCB3
M30
⑦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M41
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②
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M17
M2
⑦
M61
M8
M68
PCB7
PCB5
M18
M19
PCB4
M7
M5
M4
M1
M49
PCB10
M50
M19
⑤
③
M44
M46
M45
M59
E102
M47
M13
M48
PCB8
M52
M51
⑨
M54
M14
PCB6
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M15
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CN101
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PCB11
PCB12
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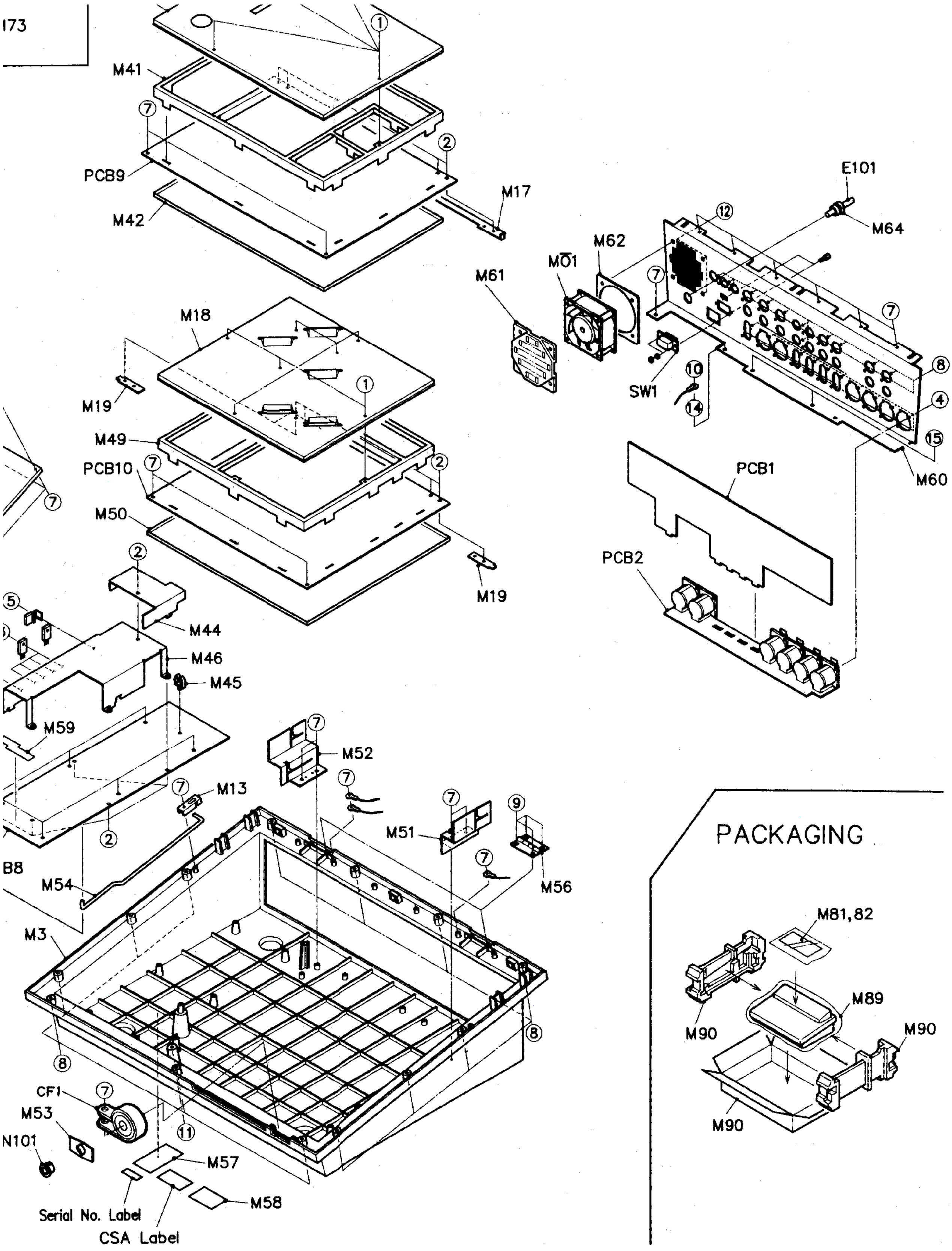
Serial No. Label
CSA Label


173
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M18
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SW1
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PCB10
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PCB1
M50
PCB2
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⑨
M51
②
PACKAGING
B8
M54
M56
M81,82
M3
M89
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M90
⑧
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M90
CF1
⑦
M53
⑪
N101
M57
M58
Serial No. Label
CSA Label

REPLACEMENT PARTS LIST

Important Notice

1. Components identified by " ⚠ " mark have special characteristic important for safety. When replacing any of these components, use only manufacturer's specified parts.
2. RTL : Retention Time Limited.

REF.NO.	PART NO.	DESCRIPTION
MISCELLANEOUS		
MO1	YWFBA06A12LD	DC Motor
Me1	YWLI1244	Level Meter Unit
CF1	YWTRCN16816	Filter for WJ-MX50A/B/G
F101 ⚠	XBA1C31NU100	Current Fuse for WJ-MX50A/USA/CANADA 3.15A 125V
	XBA2C25ET0A	Current Fuse for WJ-MX50A/B/G 2.5A 250V
E101 ⚠	YWKP30SVT204	AC Power Cable for WJ-MX50A/USA
	YWKP30SJT204	AC Power Cable for WJ-MX50A/CANADA
	YWGTBS2R5B	AC Power Cable for WJ-MX50A/B
	YWACJ450/GA	AC Power Cable for WJ-MX50A/G
E102	YFCD20ACCAP	Insulator Cap
SW1	YWSEP2A01BBM	Seesaw Switch
CN101	YWD0111N618	10-pin Title Connector
M1	YWV0MC0112AN	Upper Cover Mechanical Ass'y for WJ-MX50A/USA/CANADA
	YWV0MD0112AN	Uper Cover Mechanical Ass'y for WJ-MX50A/B/G
M2	YWV0MC0113AN	Meter Case Mechanical Ass'y for WJ-MX50A/USA/CANADA
	YWV0MD0113AN	Meter Case Mechanical Ass'y for WJ-MX50A/B/G
M3	YWV9AA0781AN	Bottom Cover Ass'y
M4	YWV5RA0371A3	Slide VR Knob A
M5	YWV5RB0335A3	Slide VR Knob B
M7	YWV5RA0372A3	VR Knob
M8	YWV5RA0334A3	Knob
M9	YWV7PA0093A3	Badge
M11	YWV5EA1153A2	Cover
M12	YWV5WA1396A4	Sheet
M13	YWV2SA2284A4	Hook Mounting Angle
M14	YWV3BA0101A2	Supporting Angle A
M15	YWV3BA0102A2	Supporting Angle B
M16	YWV2HA1042A2	Shield Parts for Analog Board
M17	YWV2SA2280A3	Mounting Angle for Analog Board
M18	YWV2HA1043A2	Shield Parts for Digital Board
M19	YWV2SA2281A4	Mounting Angle for Digital Board
M23	YWV5WA1397A3	Mic Panel
M25	YWV5EA1150A3	Fader Cover
M26	YWV5EA1151A3	Fader Lever Cover
M27	YWV5JA0082A3	Fader Grip
M28	YWV5GA0128A4	Fader Cap A
M29	YWV5GA0129A4	Fader Cap B
M30	YWV2SA2303A4	Fader Lever Mounting Angle
M32	YWV2KA0778A4	Fader Lever Chassis
M33	YWV4HA0192A3	Fader Shaft
M34	YWV4RA0103A4	Fader Lever
M35	YWV2NA0399A4	Fader Spacer
M36	YWV1FA0074A4	Fader Nut
M37	YWV1KA0151A4	Fader Washer A
M38	YWV1KA0152A4	Fader Washer B
M39	YWV5GA0130A4	Cap
M41	YWV2HA1044A1	Shield Parts for Analog Board
M42	YWV2HA1045A2	Shield Parts for Analog Board
M44	YWV2PA0529A3	Insulator
M45	YWUAMS11V0	Cord Clamp for Power Board
M46	YWV7DA0328A2	Heat Sink for Power Board
M47	YWV2PA0539A3	Insulator for Power Board for WJ-MX50A/B/G
M48	YWV2HA1050A2	Shield Parts for Power Board for WJ-MX50A/B/G
M49	YWV2HA1046A1	Shield Parts for Digital Board
M50	YWV2HA1047A2	Shield Parts for Digital Board
M51	YWV2SA2278A3	Mounting Angle A
M52	YWV2SA2279A3	Mounting Angle B
M53	YWV5WA1398A4	Title Panel
M54	YWV2SA2282B4	Hook L
M56	YWTHTMN086	Hinge
M57 ⚠	YW7Z1A013A	Main Label for WJ-MX50A/USA
	YW7Z1A014A	Main Label for WJ-MX50A/CANADA
	YW7Z1A015A	Main Label for WJ-MX50A/B
	YW7Z1A016A	Main Label for WJ-MX50A/G
M58	YWV7MA0464A4	DOC Label for WJ-MX50A/CANADA
M59	YW7G1A804A	Fuse Replacement Label for WJ-MX50A/CANADA
M60	YWV5EA1168A1	Rear Panel for WJ-MX50A/USA/B/G
	YWV5EB1168B1	Rear Panel for WJ-MX50A/CANADA
M61	YWV2SA2377A4	Fan Mounting Angle
M62	YWV2NA0400A4	Fan Spacer
M64	YWSR5N4	Cord Clamp for WJ-MX50A/USA
	YWSR6N3-4	Cord Clamp for WJ-MX50A/CANADA
	YWSR6W1	Cord Clamp for WJ-MX50A/B/G
M65	YWMASB320	Hexagon Spacer
M66	YWV4JA0446A4	Wave Washer
M68	YWV2HA1094A4	Shield Parts for Posi Board
M71	YWV9AC0779AN	Upper Cover Ass'y for WJ-MX50A/USA/CANADA
	YWV9AD0779AN	Upper Cover Ass'y for WJ-MX50A/B/G
M72	YWV9AA0782BN	Meter Case Ass'y for WJ-MX50A/USA/CANADA
	YWV9AB0782BN	Meter Case Ass'y for WJ-MX50A/B/G
M73	YWV5RB0373A2	Switch Button (Three in one, Blue)
M74	YWV5RA0373A2	Switch Button (Three in one, White)
M75	YWV5RA0375A2	Switch Button (White)
M76	YWV5RA0376A2	Switch Button (White)
M77	YWV5RA0374A2	Switch Button (Two in one, White)
M78	YWV5RB0375A2	Switch Button (Gray)

REF.NO.	PART NO.	DESCRIPTION
	REAR-1 BOARD	
PCB1	YWJKBMX50P2A	Printed Board Refer to Replacement Parts List for WJ-MX50.
	REAR-2 BOARD	
PCB2	YWJKCMX50P2A	Printed Board Refer to Replacement Parts List for WJ-MX50.
	WIPE BOARD	
PCB3	YWJKZMX50P6A	Printed Board Refer to Replacement Parts List for WJ-MX50.
	METER-1 BOARD	
PCB4 (RLT)	YWJKBMX50P1A	Printed Circuit Board Ass'y Refer to Replacement Parts List for WJ-MX50.
	METER-2 BOARD	
PCB5 (RLT)	YWJKCMX50P1A	Printed Circuit Board Ass'y Refer to Replacement Parts List for WJ-MX50.
	JACK BOARD	
PCB6 (RLT)	YWJKDMX50P1A	Printed Circuit Board Ass'y Refer to Replacement Parts List for WJ-MX50.
	POSI BOARD	
PCB7 (RLT)	YWJKEMX50P1A	Printed Circuit Board Ass'y Refer to Replacement Parts List for WJ-MX50.
	POWER BOARD	
PCB8 (RLT)	YWJKZMX50P1A	Printed Circuit Board Ass'y for WJ-MX50A/USA/CANADA
	YWJKZMX50E1A	Printed Circuit Board Ass'y for WJ-MX50A/B/G Refer to Replacement Parts List for WJ-MX50.

REF.NO.	PART NO.	DESCRIPTION
	ANALOG BOARD	
PCB9 (RLT)	YWJM50APKZ2A	Printed Circuit Board Ass'y for WJ-MX50A/USA/CANADA
	YWJM50AEKZ2A	Printed Circuit Board Ass'y for WJ-MX50A/B/G
IC10	YWM141625AFU	IC
IC16	YWM141625AFU	IC
IC702	MC74HC125AF	IC
IC706,707	MC74HC541AF	IC
IC708	HD6475368RF	IC
IC716,717	MC74HC138AF	IC
R104	ERJ6GEYJ332	Carbon for WJ-MX50A/B/G 3.3K ohms 1/16W
R250	ERJ6GEYJ113	Carbon for WJ-MX50A/B/G 11K ohms 1/16W
R171	ERJ6GEYJ183	Carbon for WJ-MX50A/USA/CANADA 18K ohms 1/16W
R177	ERJ6GEYJ273	Carbon for WJ-MX50A/USA/CANADA 27K ohms 1/16W
R194	ERJ6GEYJ183	Carbon for WJ-MX50A/USA/CANADA 18K ohms 1/16W
R250	ERJ6GEYJ682	Carbon for WJ-MX50A/USA/CANADA 6.8K ohms 1/16W
	ERJ6GEYJ113	Carbon for WJ-MX50A/B/G 11K ohms 1/16W
R251	ERJ6GEYJ123	Carbon for WJ-MX50A/USA/CANADA 12K ohms 1/16W
	ERJ6GEYJ163	Carbon for WJ-MX50A/B/G 16K ohms 1/16W
R373	ERJ6GEYJ101	Carbon for WJ-MX50A/USA/CANADA 100 ohms 1/16W
R449	ERJ6GEYJ273	Carbon for WJ-MX50A/USA/CANADA 27K ohms 1/16W
VR11	EVM1DSW30B34	Variable Resistor for WJ-MX50A/USA/CANADA 30K ohms
VR14	EVM1DSW30B34	Variable Resistor for WJ-MX50A/USA/CANADA 30K ohms
VR17	EVM1DSW30B14	Variable Resistor for WJ-MX50A/USA/CANADA 10K ohms
C4	ECSF1EE226	Electrolytic for WJ-MX50A/USA/CANADA 22 μF 25V
C275	ECEA1CSN4R7	Electrolytic for WJ-MX50A/USA/CANADA 4.7 μF 16V
C298	ECEA1CSN4R7	Electrolytic for WJ-MX50A/USA/CANADA 4.7 μF 16V
C317	ECEA1CSN4R7	Electrolytic for WJ-MX50A/USA/CANADA 4.7 μF 16V
C368	ECEA1CSN4R7	Electrolytic for WJ-MX50A/USA/CANADA 4.7 μF 16V
C408	YWT316B104MT	Ceramic for WJ-MX50A/USA/CANADA 0.1 μF
C739	YGM2B104K1E	Ceramic for WJ-MX50A/USA/CANADA 0.1 μF
C784-790	YF400471CHJT	Ceramic for WJ-MX50A/USA/CANADA 470 pF
		Refer to Replacement Parts List for WJ-MX50.

DIGITAL BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB10 (RLT)	YWJM50APKZ3A	Printed Circuit Board Ass'y for WJ-MX50A/USA/CANADA
	YWJM50AEKZ3A	Printed Circuit Board Ass'y for WJ-MX50A/B/G
IC1	MC74HC4053F	IC
IC2	NJM2904M	IC
IC3,4	YWCXD1175AM	IC
IC5	MC74HC4053F	IC
IC6	NJM2904M	IC
IC7,8	YWCXD1175AM	IC
IC63	YWPD65240074	IC
IC64,65	UPD485505G25	IC
IC66	YWUPD91361	IC
IC67	YWPD65012C25	IC
IC68	MC74HC4053F	IC
IC69	MN676011NPS	IC for WJ-MX50A/USA/CANADA
	MN676021PPS	IC for WJ-MX50A/B/G
IC70	YWSC7SU04F	IC
IC71	MC74HC374AF	IC
IC72	YWMC74AC374M	IC
IC73	UPD65082GCA	IC
IC74	YWMC74HC08AF	IC
IC75	YWSC7S32FER	IC
IC76	MC74HC74AF	IC
IC77	MC74HC374AF	IC
IC78	YWMC74AC374M	IC
IC79	YWNJM78L09A	IC
IC80	YWSC7S08F	IC
IC81	NJM319M	IC
IC82,83	MC74HC541AF	IC
IC84	YWSC7SU04F	IC
IC85-87	YWSC7S08F	IC
IC88	YWPD65012C25	IC
IC89	YWSC7SU04F	IC
IC90	MN676011NPS	IC for WJ-MX50A/USA/CANADA
	MN676021PPS	IC for WJ-MX50A/B/G
IC91	YWSC7SU04F	IC
IC92,93	YWNJM78L05FA	IC
IC95	YWNJM78L05FA	IC
IC96	YW78L05UATE2	IC
U208	YWL7A1113	IC
U209-214	UPD485505G25	IC
U215	YWSC7SU04F	IC
U216	MN5AA090LMA1	IC
U217,218	YWHM63021FP	IC
U220	YWMC74AC74M	IC
U221	YWMC74AC08M	IC
U223,224	PD482445G560	IC
U233	YWL7A1113	IC
U234-239	UPD485505G25	IC
U240	YWSC7SU04F	IC
U241	MN5AA090LMA1	IC
U242,243	YWHM63021FP	IC
U244,245	PD482445G560	IC
U246	YWSC7SU04F	IC
U247	UPD65802GCA	IC
U248	YWBA178M05FP	IC
U249	YW78L05UATE2	IC
U250	YWSC7SU04F	IC
Q1-8	MSD601-QRS	Transistor
Q11	2SK198-R	FET
Q12	2SK198-Q	Transistor
Q13	MSB709-QRS	Transistor
Q14,15	2SA1733	Transistor
Q16	MSB709-QRS	Transistor
Q17	2SA1733	Transistor
Q18	2SK198-Q	Transistor
Q19	MSD601-QRS	Transistor
Q23	MSD601-QRS	Transistor
Q24,25	MSB709-QRS	Transistor
Q26	MSD601-QRS	Transistor
Q27	2SK198-Q	Transistor
Q28	MSB709-QRS	Transistor
Q29	2SK198-Q	Transistor
Q30,31	MSD601-QRS	Transistor
Q110	2SK198-Q	Transistor
Q111	2SB1198K6QR	Transistor
Q112	2SK198-Q	Transistor
Q113	2SB1198K6QR	Transistor
Q114	2SK198-Q	Transistor
Q115,116	2SB1198K6QR	Transistor
D3,4	YW1SV214TPH3	Diode for WJ-MX50A/USA/CANADA
	HVU362TRF	Diode for WJ-MX50A/B/G
D5-7	YW1SV214TPH3	Diode
D8,9	1SS315	Diode
D10,11	YW1SV214TPH3	Diode
D12,13	YW1SV214TPH3	Diode for WJ-MX50A/USA/CANADA
	YWHVU362TRF	Diode for WJ-MX50A/B/G
D100-102	YW1SV214TPH3	Diode
R1	ERJ6GEYJ821	Carbon 820 ohms 1/16W
R2	ERJ6GEYJ202	Carbon 2K ohms 1/16W
R3	ERJ6GEYJ222	Carbon 2.2K ohms 1/16W
R4	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R6,7	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R8	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R9	ERJ6GEYJ112	Carbon 1.1K ohms 1/16W
R10-27	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R28,29	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R30	ERJ6GEYJ821	Carbon 820 ohms 1/16W
R31	ERJ6GEYJ202	Carbon 2K ohms 1/16W
R32	ERJ6GEYJ222	Carbon 2.2K ohms 1/16W
R33	ERJ6GEYJ511	Carbon 510 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION
R34	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R36-39	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R40	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R41	ERJ6GEYJ112	Carbon 1.1K ohms 1/16W
R42-58	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R84	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R150,151	ERJ6GEYJ821	Carbon for WJ-MX50A/USA/CANADA 820 ohms 1/16W
	ERJ6GEYJ102	Carbon for WJ-MX50A/B/G 1K ohms 1/16W
R187	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R261,262	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R263	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R264,265	ERJ6GEYJ621	Carbon for WJ-MX50A/USA/CANADA 620 ohms 1/16W
	ERJ6GEYJ331	Carbon for WJ-MX50A/B/G 330 ohms 1/16W
R266	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R267	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R268	ERJ6GEY0R00	Carbon for WJ-MX50A/USA/CANADA 0 ohm 1/16W
R269	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R270	ERJ6GEYJ752	Carbon 7.5K ohms 1/16W
R271	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R272	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R273	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R274	ERJ6GEYJ103	Carbon for WJ-MX50A/USA/CANADA 10K ohms 1/16W
	ERJ6GEYJ183	Carbon for WJ-MX50A/B/G 18K ohms 1/16W
R275	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R276,277	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R278	ERJ6GEYJ752	Carbon for WJ-MX50A/USA/CANADA 7.5K ohms 1/16W
	ERJ6GEYJ102	Carbon for WJ-MX50A/B/G 1K ohms 1/16W
R279	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R280	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R281	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R283-289	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R290-293	ERJ6GEY0R00	Carbon for WJ-MX50A/USA/CANADA 0 ohm 1/16W
R294	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R295,296	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R297	ERJ6GEYJ105	Carbon 1M ohms 1/16W
R298	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R299-347	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R348	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R349-359	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R360	ERJ6GEYJ560	Carbon 56 ohms 1/16W
R361	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R362	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R363	ERJ6GEYJ105	Carbon 1M ohms 1/16W
R364	ERJ6GEYJ103	Carbon 10K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION
R365,366	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R367	ERJ6GEYJ752	Carbon 7.5K ohms 1/16W
R368	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R370	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R371	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R372,373	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R374	ERJ6GEYJ202	Carbon 2K ohms 1/16W
R375	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R376	ERJ6GEYJ511	Carbon 510 ohms 1/16
R377	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R378	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R379	ERJ6GEYJ222	Carbon 2.2K ohms 1/16W
R380	ERJ6GEYJ392	Carbon 3.9K ohms 1/16W
R381	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R382,383	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R384-399	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R400	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R401	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R402-417	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R418	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R419	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R420	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R422-432	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R433,434	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R435	ERJ6GEYJ511	Carbon for WJ-MX50A/B/G 510 ohm 1/16W
R436	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R437	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R438	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R439-444	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R447-463	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R464	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R465,466	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R467	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R468	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R469	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R470	ERJ6GEYJ752	Carbon for WJ-MX50A/USA/CANADA 7.5K ohms 1/16W
	ERJ6GEYJ102	Carbon for WJ-MX50A/B/G 1K ohms 1/16W
R471	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R472	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R473,474	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R475	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R476	ERJ6GEYJ105	Carbon 1M ohms 1/16W
R477	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R478,479	ERJ6GEY0R00	Carbon for WJ-MX50A/USA/CANADA 0 ohm 1/16W
R480	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R481	ERJ6GEY0R00	Carbon for WJ-MX50A/USA/CANADA 0 ohm 1/16W
R482	ERJ6GEYJ331	Carbon 330 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION
R483,484	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R485	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R486	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R487	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R488	ERJ6GEYJ752	Carbon for WJ-MX50A/USA/CANADA 7.5K ohms 1/16W
	ERJ6GEYJ621	Carbon for WJ-MX50A/B/G 620 ohms 1/16W
R489	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R490	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R491,492	ERJ6GEYJ621	Carbon for WJ-MX50A/USA/CANADA 620 ohms 1/16W
	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R493,494	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R495	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R496	ERJ6GEYJ203	Carbon 20K ohms 1/16W
R497	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R498	ERJ6GEY0R00	Carbon for WJ-MX50A/USA/CANADA 0 ohms 1/16W
R499	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R500,501	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R502	ERJ6GEYJ202	Carbon 2K ohms 1/16W
R503	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R504,505	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R507	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R508	ERJ6GEYJ202	Carbon 2K ohms 1/16W
R509	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R510	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R512	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R513	ERDS2TJ272	Carbon for WJ-MX50A/USA/CANADA 2.7K ohms 1/4W
	ERDS2TJ302	Carbon for WJ-MX50A/B/G 3K ohms 1/4W
R519	ERDS2TJ202	Carbon 2K ohms 1/4W
R520	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R521,522	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R523	ERJ6GEYJ221	Carbon for WJ-MX50A/USA/CANADA 220 ohms 1/16W
	ERJ6GEYJ911	Carbon for WJ-MX50A/B/G 910 ohms 1/16W
R524,525	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R526	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R527	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R529	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R531	ERJ6GEYJ132	Carbon for WJ-MX50A/USA/CANADA 1.3K ohms 1/16W
	ERJ6GEYJ102	Carbon for WJ-MX50A/B/G 1K ohms 1/16W
R532	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R647	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R648	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R649	ERJ6GEYJ392	Carbon 3.9K ohms 1/16W
R650,652	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R653,654	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R656	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R657	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R658	ERJ6GEYJ105	Carbon 1M ohms 1/16W
R659,660	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R661	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R662	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R663	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R664,665	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R666	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R667	ERJ6GEYJ752	Carbon 7.5K ohms 1/16W
R668	ERJ3GEYJ331	Carbon 330 ohms 1/00W
R669	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R670-672	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R673,674	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R676	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R677	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R678,679	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R680	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R681-714	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R762	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R763-767	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R768,770	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R771	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R772	ERJ6GEYJ105	Carbon 1M ohms 1/16W
R773	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R774	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R775	ERJ6GEYJ331	Carbon 330 ohms 1/16W
R776	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R777	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R778	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R779	ERJ6GEYJ333	Carbon 33K ohms 1/16W
R780	ERJ6GEYJ511	Carbon 510 ohms 1/16W
R781	ERJ6GEYJ752	Carbon 7.5K ohms 1/16W
R782	ERJ3GEYJ331	Carbon 330 ohms 1/16W
R783	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R784	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R785,786	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R787	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R788	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R789,790	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R791-823	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R824-853	EXBV8V221J	Block Resistor 220 ohms
R854,855	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R856,857	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R859	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R860-871	EXBV8V221J	Block Resistor 220 ohms
R872-824	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R879	EXBV8V221J	Block Resistor 220 ohms
R875	ERJ6GEYJ392	Carbon 3.9K ohms 1/16W
R876	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R877	ERJ6GEY0R00	Carbon 0 ohm 1/16W

REF.NO.	PART NO.	DESCRIPTION
R881	ERJ6GEY0R00	Carbon for WJ-MX50A/USA/CANADA 0 ohm 1/16W
R882	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R886,887	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R892	ERJ6GEY0R00	Carbon for WJ-MX50A/B/G 0 ohm 1/16W
R893	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R895	ERJ6GEYJ123	Carbon 12K ohms 1/16W
R896	ERJ6GEYJ333	Carbon 33K ohms 1/16W
R897	ERJ6GEYJ332	Carbon 3.3K ohms 1/16W
R898	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R899	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R900	ERJ6GEYJ105	Carbon 1M ohms 1/16W
R901	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R902	ERJ6GEYJ104	Carbon 100K ohms 1/16W
R904,905	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R907	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R909-915	EXBV8V221J	Block Resistor 220 ohms
R934,936	ERJ6GEY0R00	Carbon 0 ohm 1/16W
R937-942	ERJ6GEYJ101	Carbon 100 ohms 1/16W
R943,944	ERJ6GEYJ221	Carbon 220 ohms 1/16W
R945	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R946,947	ERJ6GEY0R00	Carbon 0 ohms 1/16W
R950-952	ERJ6GEY0R00	Carbon 0 ohms 1/16W
R954	ERJ6GEY0R00	Carbon 0 ohms 1/16W
R955	ERJ6GEYJ751	Carbon for WJ-MX50A/USA/CANADA 750 ohms 1/16W
	ERJ6GEYJ621	Carbon for WJ-MX50A/B/G 620 ohms 1/16W
R956,957	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R958,959	ERJ6GEYJ392	Carbon 3.9K ohms 1/16W
VR1	EVM1DSW30B14	Variable Resistor 10K ohms
Z1-5	YWRKM10L102F	Block Resistor 1K ohms
C2,3	ECSF1CE336	Electrolytic 33 µF 16V
C4,5	YF400333XKT	Ceramic 0.033 µF
C6,7	ECEA1AKS330	Electrolytic 33 µF 10 V
C8	YWS21A106T	Electrolytic 10 µF 10V
C9	YWT316B104MT	Ceramic 0.1 µF
C10	YF400333XKT	Ceramic 0.033 µF
C11	YWS21A106T	Electrolytic 10 µF 10V
C12	YWT316B104MT	Ceramic 0.1 µF
C13	YGM2C680J1HT	Ceramic 68 pF
C14	YF400333XKT	Ceramic 0.033 µF
C15-17	YGM2C220J1HT	Ceramic 22 pF
C18	YWS21A106T	Electrolytic 10 µF 10V
C19	YWT316B104MT	Ceramic 0.1 µF
C20	ECEA1ESN4R7	Electrolytic 4.7µF 25V
C21	YGM2C102J1HT	Ceramic 1000 pF
C22	ECEA0JKS470	Electrolytic 47 µF 6.3V
C23	YWS21A106T	Electrolytic 10 µF 10V
C24	YWT316B104MT	Ceramic 0.1 µF
C25	YWS21A106T	Electrolytic 10 µF 10V
C26	YF400333XKT	Ceramic 0.033 µF
C27	YWT316B104MT	Ceramic 0.1 µF
C28	YGM2C680J1HT	Ceramic 68 pF

REF.NO.	PART NO.	DESCRIPTION
C29	YF400333XKT	Ceramic 0.033 µF
C30,31	YGM2C220J1HT	Ceramic 22 pF
C32	YF400333XKT	Ceramic 0.033 µF
C33	ECEA1AKS330	Electrolytic 33 µF 10 V
C34	YF400333XKT	Ceramic 0.033 µF
C35,36	ECEA1AKS330	Electrolytic 33 µF 10 V
C37	YWS21A106T	Electrolytic 10 µF 10V
C38	YWT316B104MT	Ceramic 0.1 µF
C39	YWS21A106T	Electrolytic 10 µF 10V
C40	YWT316B104MT	Ceramic 0.1 µF
C41	YF400333XKT	Ceramic 0.033 µF
C42	YGM2C680J1HT	Ceramic 68 pF
C43	YF400333XKT	Ceramic 0.033 µF
C44-48	YGM2C220J1HT	Ceramic 22 pF
C49	YWS21A106T	Electrolytic 10 µF 10V
C50	YWT316B104MT	Ceramic 0.1 µF
C51	ECEA1ESN4R7	Electrolytic 4.7 µF 25V
C52	YGM2C102J1HT	Ceramic 1000 pF
C53	ECEA0JKS470	Electrolytic 47 µF 6.3V
C54	YWS21A106T	Electrolytic 10 µF 10V
C55	YWT316B104MT	Ceramic 0.1 µF
C56	YWS21A106T	Electrolytic 10 µF 10V
C57	YF400333XKT	Ceramic 0.033 µF
C58	YWT316B104MT	Ceramic 0.1 µF
C59	YGM2C680J1HT	Ceramic 68 pF
C60	YF400333XKT	Ceramic 0.033 µF
C71	ECCF1H100DC	Ceramic for WJ-MX50A/B/G 10 pF
C84	YGM2C330J1HT	Ceramic 33 pF
C116	YWS21A106T	Electrolytic 10 µF 10V
C117,118	YWT316B104MT	Ceramic 0.1 µF
C119-121	YGM2C330J1HT	Ceramic 33 pF
C125-132	YGM2C330J1HT	Ceramic 33 pF
C151,153	YF400120CHJT	Ceramic for WJ-MX50A/USA/CANADA 12 pF
	YF400040CHDT	Ceramic for WJ-MX50A/B/G 4 pF
C162	YGM2C330J1HT	Ceramic 33 pF
C195	YW400201CHJT	Ceramic 200 pF
C196,197	YGM2C470J1HT	Ceramic for WJ-MX50A/USA/CANADA 47 pF
	YGM2C270J1HT	Ceramic for WJ-MX50A/B/G 27 pF
C198	YWT316B104MT	Ceramic 0.1 µF
C199	ECEA1HKS2R2	Electrolytic for WJ-MX50A/USA/CANADA 2.2 µF 50 V
	ECEA1CKS100	Electrolytic for WJ-MX50A/B/G 10 µF 16V
C200	YF400103XKT	Ceramic 0.01 µF
C201	YGM2C101J1HT	Ceramic 100 pF
C202	ECEA1HKS2R2	Electrolytic 2.2 µF 50 V
C203	YF400103XKT	Ceramic 0.01 µF
C204	YWS21A226T	Electrolytic 22 µF 10V
C205,206	YGM2C330J1HT	Ceramic 33 pF
C207,208	YWT316B104MT	Ceramic 0.1 µF

REF.NO.	PART NO.	DESCRIPTION		
C209	YWS21A106T	Electrolytic	10 µF	10V
C210-212	YWT316B104MT	Ceramic	0.1 µF	
C213,214	YGM2C330J1HT	Ceramic	33 pF	
C215	YF400201CHJT	Ceramic	200 pF	
C216,217	YGM2C121J1HT	Ceramic for WJ-MX50A/USA/CANADA		
			120 pF	
	YGM2C560J1HT	Ceramic for WJ-MX50A/B/G		
			56 pF	
C218	YWT316B104MT	Ceramic	0.1 µF	
C219,220	YWS21A106T	Electrolytic	10 µF	10V
C221	YWT316B104MT	Ceramic	0.1 µF	
C222	YWS21A106T	Electrolytic	10 µF	10V
C223	YWT316B104MT	Ceramic	0.1 µF	
C224	YWS21A106T	Electrolytic	10 µF	10V
C225,226	YWT316B104MT	Ceramic	0.1 µF	
C227	YWS21A106T	Electrolytic	10 µF	10V
C228	YWT316B104MT	Ceramic	0.1 µF	
C229	ECSF1CE336	Electrolytic	33 µF	10V
C230	YGM2C270J1HT	Ceramic	27 pF	
C231	YGM2C561J1HT	Ceramic for WJ-MX50A/USA/CANADA		
			560 pF	
	YGM2C560J1HT	Ceramic for WJ-MX50A/B/G		
			56 pF	
C232	YWT316B104MT	Ceramic	0.1 µF	
C233	YWS21A106T	Electrolytic	10 µF	10V
C234	ECEA1HKS2R2	Electrolytic	2.2 µF	50V
C235	YF400332XKT	Ceramic	3300 pF	
C236	YWS21A106T	Electrolytic	10 µF	10V
C237 ,238	YWT316B104MT	Ceramic	0.1 µF	
C239	YWS21A106T	Electrolytic	10 µF	10V
C240	YWT316B104MT	Ceramic	0.1 µF	
C241	YWS21A106T	Electrolytic	10 µF	10V
C242,243	ECEA1CKS470	Electrolytic	47 µF	16 V
C244	YWT316B104MT	Ceramic	0.1 µF	
C247	YGM2C390J1HT	Ceramic	39 pF	
C248	YF400103XKT	Ceramic	0.01 µF	
C249	YWT316B104MT	Ceramic	0.1 µF	
C250	ECEA0JKS470	Electrolytic	47 µF	6.3V
C251	YWT316B104MT	Ceramic	0.1 µF	
C252	YWS21A106T	Electrolytic	10 µF	10V
C253,234	YWT316B104MT	Ceramic	0.1 µF	
C255,256	YWS21A106T	Electrolytic	10 µF	10V
C257	YWT316B104MT	Ceramic	0.1 µF	
C258	YWS21A106T	Electrolytic	10 µF	10V
C259,260	YWT316B104MT	Ceramic	0.1 µF	
C261	YWS21A106T	Electrolytic	10 µF	10V
C262	YWT316B104MT	Ceramic	0.1 µF	
C263-266	YWS21A106T	Electrolytic	10 µF	10V
C267	YWT316B104MT	Ceramic	0.1 µF	
C268	YWS21A106T	Electrolytic	10 µF	10V
C269	YWT316B104MT	Ceramic	0.1 µF	
C272	YWS21A106T	Electrolytic	10 µF	10V
C273-277	YGM2C330J1HT	Ceramic	33 pF	
C283	YGM2C330J1HT	Ceramic	33 pF	
C284	YWT316B104MT	Ceramic	0.1 µF	
C285-289	YGM2C330J1HT	Ceramic	33 pF	
C290	ECEA1HKS2R2	Electrolytic	2.2 µF	50 V
C291	YF400103XKT	Ceramic	0.01 µF	
C292	YGM2C101J1HT	Ceramic	100 pF	
C293,294	YGM2C121J1HT	Ceramic for WJ-MX50A/USA/CANADA		
			120 pF	
	YGM2C560J1HT	Ceramic for WJ-MX50A/B/G		
			56 pF	
C295	YWS21A106T	Electrolytic	10 µF	10V
C296,297	YWT316B104MT	Ceramic	0.1 µF	
C298,299	YGM2C470J1HT	Ceramic for WJ-MX50A/USA/CANADA		
			47 pF	
	YGM2C270J1HT	Ceramic for WJ-MX50A/B/G		
			27 pF	
C300	YF400201CHJT	Ceramic	200 pF	
C301	ECEA1HKS2R2	Electrolytic for WJ-MX50A/USA/CANADA		
			2.2 µF	50 V
	ECEA1CKS100	Electrolytic for WJ-MX50A/B/G		
			10 µF	16V
C302	YF400103XKT	Ceramic	0.01 µF	
C303,304	YWT316B104MT	Ceramic	0.1 µF	
C305	YGM2C101J1HT	Ceramic	100 pF	
C306	YWT316B104MT	Ceramic	0.1 µF	
C307	YWS21A106T	Electrolytic	10 µF	10V
C308	ECSF1CE336	Electrolytic	33 µF	16V
C309	YGM2C330J1HT	Ceramic	33 pF	
C310,311	YGM2C101J1HT	Ceramic	100 pF	
C312	YGM2C330J1HT	Ceramic	33 pF	
C313	YGM2C220J1HT	Ceramic	22 pF	
C314	YGM2C101J1HT	Ceramic	100 pF	
C315	YGM2C330J1HT	Ceramic	33 pF	
C316	YGM2C220J1HT	Ceramic	22 pF	
C317	YGM2C101J1HT	Ceramic	100 pF	
C318,319	YGM2C330J1HT	Ceramic	33 pF	
C322	YGM2C330J1HT	Ceramic	33 pF	
C323	ECSF1CE336	Electrolytic	33 µF	16V
C324	YGM2C100D1HT	Ceramic	10 pF	
C325-328	YGM2C121J1HT	Ceramic	120 pF	
C329,330	YGM2C330J1HT	Ceramic	33 pF	
C331	YGM2C100D1HT	Ceramic	10 pF	
C332	YWS21A226T	Electrolytic	22 µF	10V
C333,334	YGM2C390J1HT	Ceramic	39 pF	
C335	YWS21A226T	Electrolytic	22 µF	10V
C338	YGM2C390J1HT	Ceramic	39 pF	
C339,340	ECEA1AKS101	Electrolytic	100 µF	10 V
C341	YGM2C390J1HT	Ceramic	39 pF	
C342,343	YGM2C330J1HT	Ceramic	33 pF	
C344-346	YWT316B104MT	Ceramic	0.1 µF	
C347-349	YGM2C330J1HT	Ceramic	33 pF	
C350,351	YWT316B104MT	Ceramic	0.1 µF	
C352,353	YWS21A226T	Electrolytic	22 µF	10V
C354-357	YWT316B104MT	Ceramic	0.1 µF	
C358	ECEA0JKS331	Electrolytic	330 µF	6.3V
C359,360	YWT316B104MT	Ceramic	0.1 µF	

REF.NO.	PART NO.	DESCRIPTION		
C361	ECEA0JKS331	Electrolytic	330 µF	6.3V
C362,363	YWT316B104MT	Ceramic	0.1 µF	
C364	ECSF1CE336	Electrolytic	33 µF	16V
C365-369	YWT316B104MT	Ceramic	0.1 µF	
C370	ECSF1CE336	Electrolytic	33 µF	16V
C371	YWT316B104MT	Ceramic	0.1 µF	
C372	TAJD336M010R	Tantalum	33 µF	10V
C373-375	YWT316B104MT	Ceramic	0.1 µF	
C376	YGM2C101J1HT	Ceramic	100 pF	
C377	YGM2C390J1HT	Ceramic for WJ-MX50A/B/G	39 pF	
C378.379	ECST1EC106	Electrolytic	10 µF	25V
C539	YWT316B104MT	Ceramic	0.1 µF	
C540	SK51A106MA	Tantalum	10 µF	10 V
C541-545	YWT316B104MT	Ceramic	0.1 µF	
C546	YWSK51A106MA	Tantalum	10 µF	10 V
C547,548	YWT316B104MT	Ceramic	0.1 µF	
C549-551	SK51A106MA	Tantalum	10 µF	10 V
C552	EEVHB1C220	Electrolytic	22 µF	16 V
C553	ECEV0JA471	Electrolytic	470 µF	6.3 V
C554,555	SK21A476KRD	Tantalum	47 µF	10V
C556	YWT316B104MT	Ceramic	0.1 µF	
C557	YGM2C561J1HT	Ceramic	560 pF	
C558	YGM2C270J1HT	Ceramic	27 pF	
C559	YF400332XKT	Ceramic	3300 pF	
C560	EEVHB1H2R2	Electrolytic	2.2 µF	50V
C561	YGM2C101J1HT	Ceramic	100 pF	
C562	YF400103XKT	Ceramic	0.01 µF	
C563,564	SK51A106MA	Tantalum	10 µF	10V
C566,567	YWT316B104MT	Ceramic	0.1 µF	
C569-580	YWT316B104MT	Ceramic	0.1 µF	
C581-583	SK51A106MA	Tantalum	10 µF	10V
C622	SK21A476KRD	Tantalum	47 µF	10V
C623,624	YWT316B104MT	Ceramic	0.1 µF	
C625-627	SK51A106MA	Tantalum	10 µF	10V
C628,629	YWT316B104MT	Ceramic	0.1 µF	
C630	SK51A106MA	Tantalum	10 µF	10V
C631-634	YWT316B104MT	Ceramic	0.1 µF	
C635-638	SK51A106MA	Tantalum	10 µF	10V
C639	SK21A476KRD	Tantalum	47 µF	10V
C640	YWT316B104MT	Ceramic	0.1 µF	
C641	YF400103XKT	Ceramic	0.01 µF	
C642	YGM2C101J1HT	Ceramic	100 pF	
C643	YGM2C270J1HT	Ceramic	27 pF	
C644	YGM2C561J1HT	Ceramic	560 pF	
C645	YF400332XKT	Ceramic	3300 pF	
C646	EEVHB1H2R2	Electrolytic	2.2 µF	50V
C647	SK21A476KRD	Tantalum	47 µF	10V
C648,649	SK51A106MA	Tantalum	10 µF	10V
C650-661	YWT316B104MT	Ceramic	0.1 µF	
C662	EEVHB1C220	Electrolytic	22 µF	16V
C663	ECEV0JA471	Electrolytic	470 µF	6.3V
C664	SK21A476KRD	Tantalum	47 µF	10V
C665,666	YWT316B104MT	Ceramic	0.1 µF	
C667	SK51A106MA	Tantalum	10 µF	10V
C668,669	YWT316B104MT	Ceramic	0.1 µF	
C670	SK51A106MA	Tantalum	10 µF	10 V
C671,672	YWT316B104MT	Ceramic	0.1 µF	
C673	SK51A106MA	Tantalum	10 µF	10 V
C674,675	YWT316B104MT	Ceramic	0.1 µF	
C676	SK51A106MA	Tantalum	10 µF	10 V
C677,678	YWT316B104MT	Ceramic	0.1 µF	
C679	SK51A106MA	Tantalum	10 µF	10 V
C680,681	YWT316B104MT	Ceramic	0.1 µF	
C682	SK51A106MA	Tantalum	10 µF	10 V
C683,684	YWT316B104MT	Ceramic	0.1 µF	
C685	SK51A106MA	Tantalum	10 µF	10 V
C686,687	YWT316B104MT	Ceramic	0.1 µF	
C688	SK51A106MA	Tantalum	10 µF	10 V
C689	YWT316B104MT	Ceramic	0.1 µF	
C690	EEVHB1C100	Electrolytic	10 µF	16 V
C691-694	YWT316B104MT	Ceramic	0.1 µF	
C695	ECST1AY106	Tantalum	10 µF	10 V
C696	EEVHB1H2R2	Electrolytic	2.2 µF	50 V
C698	YF400201CHJT	Ceramic	200 pF	
C699.700	YGM2C102J1HT	Ceramic	1000 pF	
C701	SK51A106MA	Tantalum	10 µF	10 V
C702,703	YWT316B104MT	Ceramic	0.1 µF	
C704	SK51A106MA	Tantalum	10 µF	10 V
C705	YWT316B104MT	Ceramic	0.1 µF	
C706	YGM2C180J1HT	Ceramic	18 pF	
C707	EEVHB1C220	Electrolytic	22 µF	16 V
C708	ECEV0JA471	Electrolytic	470 µF	6.3 V
C709	EEVHB1C220	Electrolytic	22 µF	16 V
C710	ECEV0JA471	Electrolytic	470 µF	6.3 V
C711	YF400150CHJT	Ceramic	15 pF	
C712-727	YGM2C220J1HT	Ceramic	22 pF	
C728	YWT316B104MT	Ceramic	0.1 µF	
C729	EEVHB1C470	Electrolytic	47 µF	16 V
C730	YWT316B104MT	Ceramic	0.1 µF	
C1001-1007	YWS21A336	Electrolytic for WJ-MX50A/B/G	33 µF	10V
L2	ELC08D082	Coil		
L3-8	ELESN1R0KA	Coil	1 µH	
L15	ELESN1R0KA	Coil	1 µH	
L20,21	ELESN1R0KA	Coil	1 µH	
L22,23	ELESN100KA	Coil	10 µH	
L24	YWS5LE0554	Coil		
L25	ELESN100KA	Coil	10 µH	
L26-30	ELESN220KA	Coil	22 µH	
L31-33	ELESN1R0KA	Coil	1 µH	
L34	ELC08D082	Coil		

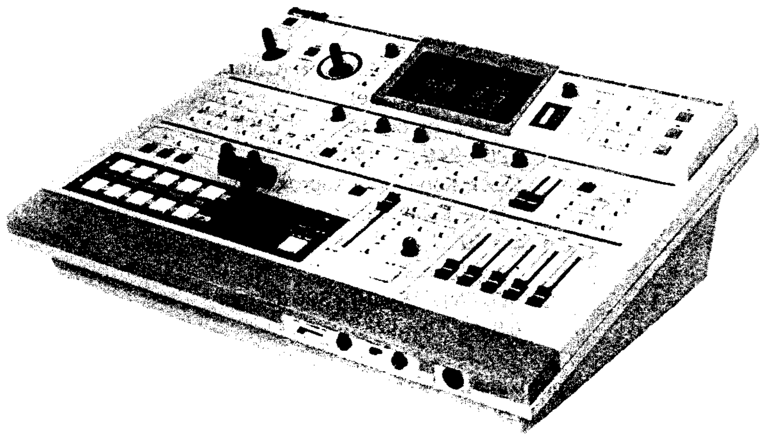
REF.NO.	PART NO.	DESCRIPTION
L35	ELESN1R0KA	Coil 1 µH
L36,37	ELESN100KA	Coil 10 µH
L38	ELJFA101KF	Coil 100 µH
L40,41	NL25T560J	Coil 56 µH
L106,107	ELJFA1R0KF	Coil 1 µH
L108	5206JPS104	Coil
L109	ELJFA1R0KF	Coil 1 µH
L117,118	ELJFA1R0KF	Coil 1 µH
L119	5206JPS104	Coil
L121-125	ELJFA1R0KF	Coil 1 µH
L126	5210JPS092	Coil
L127,128	ELJFA1R0KF	Coil 1 µH
L129	ELESN100KA	Coil 10 µH
L150,151	NL25T560J	Coil 56 µH
L513	F2012E8R2KT	Coil 8.2 µH
L949	NL25T560J	Coil 56 µH
X1	YFMS30914M10	Crystal Oscillator for WJ-MX50A/USA/CANADA
	YWN8R4R40625	Crystal Oscillator for WJ-MX50A/B/G
X2	YFMS30914M10	Crystal Oscillator for WJ-MX50A/USA/CANADA
	YFMS30917M10	Crystal Oscillator for WJ-MX50A/B/G
X3	YFMS30914M10	Crystal Oscillator for WJ-MX50A/USA/CANADA
	YWN8R4R40625	Crystal Oscillator for WJ-MX50A/B/G
X4	YFMS30914M10	Crystal Oscillator for WJ-MX50A/USA/CANADA
	YFMS30917M10	Crystal Oscillator for WJ-MX50A/B/G
CN1	YW530140510	5-pin Connector
CN2	YWF794P040LA	40-pin Connector
CN3	YWF794P020LA	20-pin Connector
CN4	YW530140710	7-pin Connector
TP3-5	YWRCT2125TPV	Test Point
TP103	YWRCT2125TPV	Test Point
TP107-110	YWRCT2125TPV	Test Point

REF.NO.	PART NO.	DESCRIPTION
SWITCH BOARD		
PCB11 (RLT)	YWJKZMX50P4A	Printed Circuit Board Ass'y Refer to Replacement Parts List for WJ-MX50.
AUDIO BOARD		
PCB12 (RLT)	YWJKZMX50P5A	Printed Circuit Board Ass'y Refer to Replacement Parts List for WJ-MX50.
ACCESSORY PARTS/PACKAGING PARTS		
M81	YW7J1A114A	Operating Instructions for WJ-MX50A/USA/CANADA
	YW7J1A117A	Operating Instructions for WJ-MX50A/B/G
M82	YW7J1A116A	Operating Instructions for WJ-MX50A/Canada
M89	YWT80X90X1	Polyethylene Bag
M90	YW0C1A018AB	Packging Ass'y for WJ-MX50A/USA
	YW0C1A018AC	Packging Ass'y for WJ-MX50A/CANADA
	YW0C1A018AD	Packging Ass'y for WJ-MX50A/B/G

ORDER NO. AVS9206582C8

Service Manual

Production Mixer
WJ-MX50



SPECIFICATIONS

Source Input :	×4 (SOURCE 1/2/3/4)
Composite Video Input :	1.0 Vp-p/75 Ohms, PAL signal, BNC ×4
S-Video Input :	Y signal; 1.0 Vp-p/75 Ohms, C signal; 0.3 Vp-p/75 Ohms, Mini DIN 4 connector×4
Audio Input :	SOURCE 1/2; XLR-type×2, +4 dBm/600 ohms (Balanced), Left and Right. SOURCE 3/4; Pin-jack×2, −6 dBs/20 Kohms (Unbalanced), Left and Right.
Auxliliary Audio Input :	×2 (Aux1/2) −6dBs/20 Kohms, Pin-jack (Unbalanced), Left and Right
Microphone Input :	−60 dBv/600 ohms, unbalanced, tip-ring-sleeve type phone jack×1
External Camera Input :	1.0 Vp-p/75 ohms, PAL compostie signal, BNC×1 Y signal; 1.0 Vp-p/75 ohms, C signal; 0.3 Vp-p/75 ohms, Mini DIN 4 connector×1
GPI Input :	Make-contact, BNC×1
Character (TITLE) Input :	10-pin connector×1 for optional Character Generator WV-KB12A, WJ-KB15, WJ-KB50.
Program Output :	×2 (PROGRAM OUT 1/2)
Composite Video Output :	1.0 Vp-p/75 ohms PAL signal, BNC×2
S-Video Output :	Y signal; 1.0 Vp-p/75 ohms, C signal: 0.3 Vp-p/75 ohms, Mini DIN 4 connector×2
Audio Output :	PROGRAM OUT 1; XLR-type×1, +4dBs/47 ohms (Balanced), Left and Right. PROGRAM OUT 2; Pin-jack×1, −6dBs/47 ohms (Unbalanced), Left and Right.
Previw Output :	1.0 Vp-p/75 ohms, PAL composite signal, BNC×1.
Black Burst Output :	Sync 0.3 Vp-p/75 ohms, Burst 0.3 Vp-p/75 ohms PAL signal, BNC×1.
Advance Sync Output :	4 Vp-p/75 ohms. BNC×2
Advance Reference Output :	Sync 0.3 Vp-p/75 ohms, Burst 0.3 Vp-p/75 ohms, BNC×2
Headphone Output :	−20 dBv - −80 dBv, 8 ohms unbalanced, tip-ring-sleeve type phone jack×1.

Panasonic

Digital Effects : Nega, Mosaic, Mono, Paint, Still, Strobe, Multi, Trail, A/V Synchro, Frame
Matte Colours : Colour Bar, White, Yellow, Cyan, Green, Magenta, Red, Blue, Black.
Wipe Patterns : 287 Patterns
Joystick Control : Positioner, Colour Correction.
Audio Mixer : A-bus, B-bus, AUX-1, AUX-2, Mic, Master.
Others : Audio-Follow, Auto-Take, Auto-Fade, Memory, Special Mode.
Video Sampling : 4 : 1 : 1, Y = 14.3 MHz (936 fH), 8-bit component
Frequency Range : Sync; 15.625 KHz±300 Hz
SC; 4.433619 MHz±40 Hz
Frequency Responce : Y/C signal; 4.5 MHz (at −3dB)
Composite Video Signal; 4.5 MHz (at −3dB)
Audio; 20 - 20 KHz (at −3 dB)
Gain : Unity (Video)
S/N (Typical) : 56 dB (S-Video), 50 dB (Composite), 70dB (Audio at 1 KHz)
Differential Gain : ±5° (Composite)
Differential Phase : ±5 % (Composite)
Power Source : 220 - 240V AC 50 Hz
Power Consumption : Operation mode; Approximately 45W
Stand-by mode; Approximately 5W
Ambient Operating Temperature : 0 - 40°C
Ambient Operating Humidity : Less than 90%
Dimensions : 480 (W)×164 (H)×396 (D) mm
Wight : 6.8 Kg

Weight and dimensions indicated above are approximate.
Specifications are subject to change without notice.

⚡ **CAUTION** ⚠

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

⚡ This symbol warns the user that uninsulated voltage within the unit may have suificient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.

⚠ This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included.
Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are indicated by the "⚠" mark on the schematic diagram and the replacement parts list. It is essential that these critical parts should be repleced with manufacture's specified parts to prevent shock, fire, or other hazards.
Do not modify the original design without permission of manufacture.

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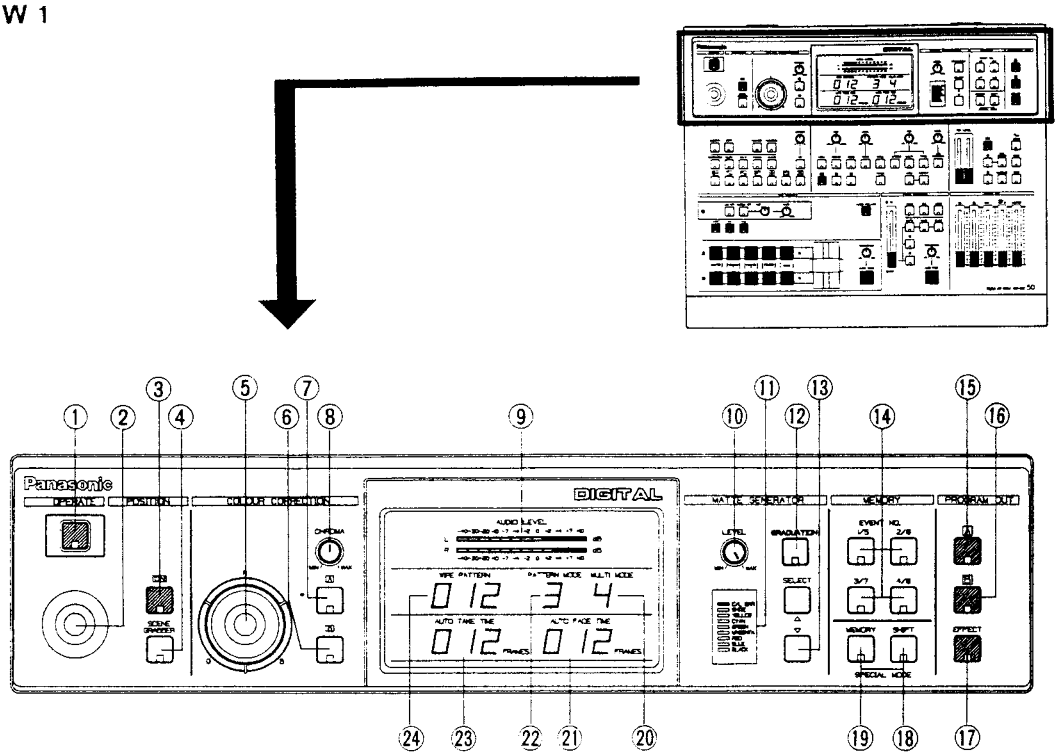
MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

■ TOP VIEW 1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Panasonic
OPERATE
POSITION
COLOUR CORRECTION
CHROMA
DIGITAL
AUDIO LEVEL
WIPE PATTERN
PATTERN MODE
MULTI MODE
012 3 4
AUTO TAKE TIME
AUTO FADE TIME
012 FRAMES
012 FRAMES
MATTE GENERATOR
LEVEL
GRADUATION
SELECT
MEMORY
EVENT NO.
PROGRAM OUT
EFFECT
MEMORY
SHIFT
SPECIAL MODE
SCENE GRABBER
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⑰

1. **Power ON/OFF Button (OPERATE)**
   Press this button to turn on the power of the unit. The LED on this button lights and the following LEDs light up at the same time. C/L BAR on the Matte Colour Indicator (11), Effect-Out Button (17), One-Way Button (27), Straight Wipe Button (70), Effect ON/OFF Button (59), Effect-A Button (58), Repeat Effect Button (54), DSK-A Button (45), Matte Button (47), Wipe Select Button (74), Source 1on A-bus Button (102), Souce 2 on B-Bus Button (101), Audio Follow ON/OFF Button (79) and Black Fade Button (85). These LED's light up only when the Reset ON/OFF Switch (109) is turned on.
   Notes :
   1. The Main Power Switch (in back) (131) must be on before the Power ON/OFF Button (1) is pressed
   2. When the Editing Controller AG-A800 is used with WJ-MX50, the power of AG-A800 should be off first to turn off the power of WJ-MX50. The power of WJ-MX50 can not be turned off by-itself.

2. **Positioner Joystick**
   The position of the wipe pattern as selected using the Square Wipe Button (60) can be freely set using this Joystick control.

3. **Positioner ON/OFF Button (ON)**
   This button must be pressed to operate the Positioner Joystick (2).

4. **Scene Grabber ON/OFF Button (SCENE GRABBER)**
   The scene wiped by the Square Wipe Button (60) will be grabbed by pressing this button. The position of this area can then be changed by operating the Positioner Joystick (2).

5. **RGB Control**
   This Joystick Control permits you to balance or change the hue from the images of the Source Video Signal (either A or B) by moving its position. When this Controller is positioned at centre, it generates the original colour of the Source Video Signal.

6. **Colour - B Button (B)**
   Colour correction can be made on the B - bus Source Video Signal by pressing this button. When you press it once, the LED starts blinking, the chroma level can be changed by using the Chroma Level Control (8).
   When you press a second time, the LED is continuously turned on, the hue can be changed by using the RGB Control (5) in addition to the chroma level by using the Chroma Level Control (8).

7. **Colour - A Button (A)**
   Colour correction can be made on the A - bus Source Video Signal by pressing this button. When you press it once, the LED starts blinking, the chroma level can be changed by using the Chroma Level Control (8).
   When you press a second time, the LED is continuously turned on, the hue can be changed by using the RGB Control (5) in addition to the chroma level by using the Chroma Level Control (8).

8. **Chroma Level Control (CHROMA)**
   This Control adjusts the colour level of the images from the Source Video Signal. When this Control is set to the centre position, it generates the original colour level of the Source Video Signal.
   Note :
   The noise may be recorded on tape when this control is adjusted to the MAX with excessive colour input signal.

9. **Audio Level Indicator (AUDIO LEVEL)**
This Indicator indicates the audio output level of the Program Out 1 Audio Output Connector (135) and the Program Out 2 Audio Output Jacks (134).

10. **Matte Colour Control (LEVEL)**
The colour displayed on the Matte Colour Indicator (11) can be adjusted with this control except C/L BAR.

11. **Matte Colour Indicator**
The Matte Colour selected by the Matte Colour Selectors (13) is shown by the appropriate LED.

12. **Graduation Button (GRADUATION)**
When this button is pressed, the Matte colour of the upper portion on the screen is less intense and gradually increases to that of the lower portion of the screen.

13. **Matte Colour Selectors (SELECT)**
Any one of 9 Matte Colours - Colour Bar, White, Yellow, Cyan, Green, Magenta, Red, Blue and Black - can be selected by repeatedly pressing either of these buttons. When the SELECT (Δ) button is pressed, the colour indicated on the Matte Colour Indicator (11) changes from lower to upper. The Black will be selected after the Colour Bar. When the SELECT (∇) button is pressed, the reverse procedure takes place.

14. **Event Number Buttons (EVENT NO)**
These buttons are used to memorize the present status of all functions settings on the unit. Also this button can be used with the Auto Take Button (97) to recall the memorized status. Each button has 2 memories (by using Shift Button (18)). Up to 8 memories are availabe with these 4 buttons.
Note :
Refer to the Shift Button (18) and the Memory Set Button (19) for selection of preset memory settings.

15. **Program Out - A Button (A)**
When this button is pressed, the A - bus source signals which is given Effect by the DIGITAL EFFECT function, COLOUR CORRECTION function, SCENE GRABBER function, COMPRESSION function or SLIDE function is provided at the Program Output connectors.
Note :
If the MATTE on the A - bus is pressed, the A - bus button will begin blinking automatically to show you which button was selected before.

16. **Program Out - B Button (B)**
When this button is pressed, the B - bus source signals which is given Effect by the DIGITAL EFFECT function, COLOUR CORRECTION function, SCENE GRABBER function, COMPRESSION function or SLIDE function is provided at the Program Output connectors.
Note :
If the MATTE on the B - bus is pressed, the B - bus button will begin blinking automatically to show you which button was selected before.

17. **Effect - Out Button (EFFECT)**
When this button is pressed, the final video signal - whether it is effected or not - will be provided at the Program Output connector.

18. **Shift Button (SHIFT)**
This button will be used when the Event Number Buttons (14) numbered 5 to 8 are required. However, in case this button is pressed with the Memory Set Button (19) simultaneously, the unit then enters the Special Mode (SPECIAL MODE).
Notice :
In the Special Mode, the LED on the Shift Button (18) goes off and the one on the Memory Set Button (19) starts blinking.

19. **Memory Set Button (MEMORY)**
This button has 2 functions. In order to activate the Event Number Buttons (14) to memorize the current status of the unit, press the Memory Set Button (19) prior to the Event Number Buttons (14). In case this button is pressed with the Shift Button (18) simultaneously (as mentioned previously), the unit enters the Special Mode.
Notice :
In Special Mode, the LED on the Shift Button (18) goes off and the one on the Memory Set Button (19) starts blinking.

20. **Multi Mode Indicator (MULTI MODE)**
The number displayed on this indicator showsthe mode of the pattern by pressing the Multi Wipe Button (67).
From 0 to 6 will be indicated

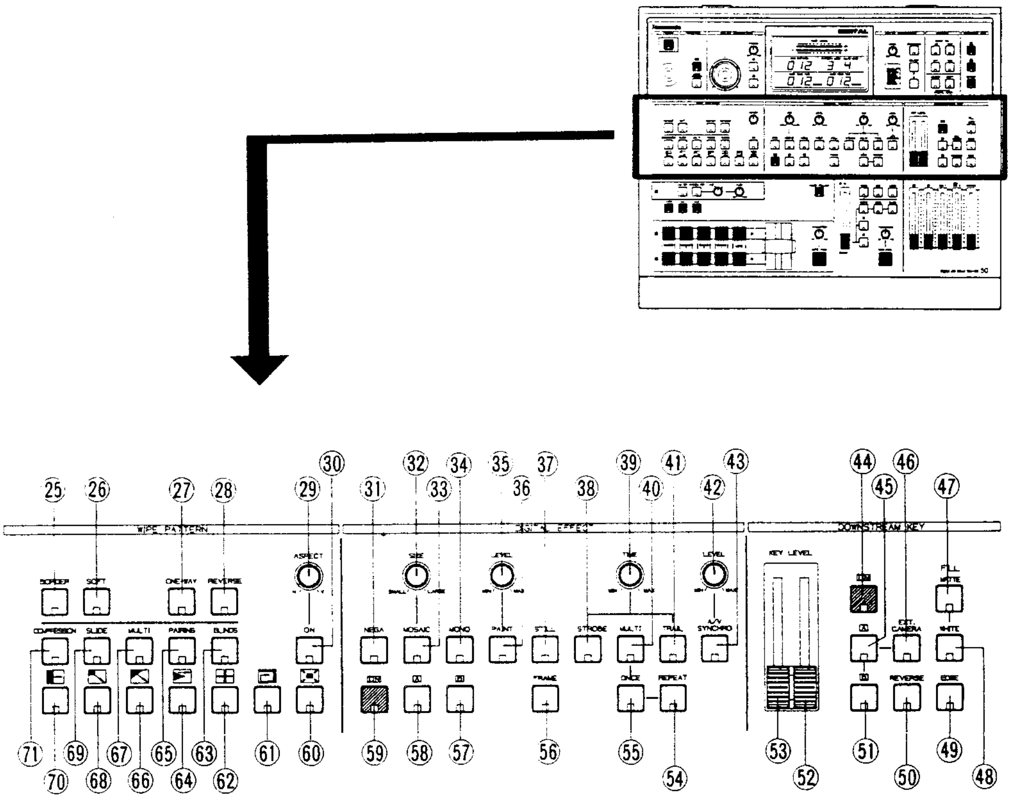
21. **Auto Fade Time Indicator (AUTO FADE TIME)**
The number on the indicator shows the fading time by picture frame when adjusting the Auto Fade Transition Control (91).
From 0 to 510 will be indicated for every 2 frames.

22. **Pattern Mode Indicator (PATTERN MODE)**
The number on this indicator shows the pattern mode which is pressed and selected from the Wipe Pattern Select Buttons number (60), (61), (62), (64), (66), (68) or (70).
From 1 to 4 will be indicated.

23. **Auto Take Time Indicator (AUTO TAKE TIME)**
The number on this indicator shows the Auto Take Time by picture frame when adjusting the Auto Take Transition Control (98).
From 0 to 510 will be indicated for every 2 frames.

24. **Wipe Pattern Number Indicator (WIPE PATTERN)**
The number on this indicator shows the wipe pattern which is generated by the combinations of the Wipe Pattern Select Buttons number (60), (61), (62), (64), (66), (68) or (70), and Modify Buttons number (63), (65), (67), (69) or (71).
Any possible combination from 1 to 255 will be indicated.

■ TOP VIEW 2


WIPE PATTERN
DIGITAL EFFECT
DOWNSTREAM KEY
BORDER
SOFT
ONE-WAY
REVERSE
ASPECT
ON
COMPRESSION
SLIDE
MULTI
PAIRING
BLINDS
SIZE
NEGA
MOSAIC
MONO
LEVEL
PAINT
STILL
FRAME
TIME
STROBE
MULTI
TRAIL
ONCE
REPEAT
LEVEL
A/V SYNCHRO
KEY LEVEL
EXT. CAMERA
FILL MATTE
WHITE
REVERSE
EDGE
25
26
27
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30
31
32
33
34
35
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25. **Border Button (BORDER)**
This button is used for selecting a border wipe edge. Pressing this button once selects a narrow border. Pressing this button a second time selects a wide border. The colour of the border is applied from the complementary colour of selected Matte Colour.

26. **Soft Button (SOFT)**
This button is used for making the faint border wipe edge. Pressing this button once selects a narrow soft border. Pressing this button a second time selects it a wide soft border. No colour is available.

27. **One - Way Button (ONE - WAY)**
When this button is pressed, the wiping scene moves one way everytime by changing the Mix/Wipe Lever (99). Without using this function, the wiping scene moves alternately by changing the Mix/Wipe Lever (99).

28. **Reverse Button (REVERSE)**
When this button is pressed, the movement of the wiped scene will be reversed compared without pressing this button.

29. **Aspect Control (ASPECT)**
The aspect ratio, used only when the Square Wipe Button (60) is selected, can be changed by adjusting this control. To use this function, the Aspect ON/OFF Button (30) must be ON.
Note :
The black area will be shown along the image on the video monitor when the Compression function is used with it.

30. **Aspect ON/OFF Button (ON)**
In case the Aspect function is required, this button must first be pressed.

31. **Negative Button (NEGA)**
The on-screen image can be transposed to look like a negative of the visual image by pressing this button.

32. **Mosaic Size Control (SIZE)**
The size of the pieces of the mosaic pattern can be adjusted by twisting this control.

33. **Mosaic Button (MOSAIC)**
By adding small squares in mosaic-like patterns a design or blurred image can be created. The size of the mosaic squares can be changed by using the Mosaic Size Control (32).

34. **Mono Colour Button (MONO)**
When this button is pressed, the Source Video Signal becomes a monochrome scene. This function has a priority to the Colour Correction function in operation.

35. **Paint Control (LEVEL)**
The graduation of the paint effect can be changed by adjusting this control.

36. **Paint Button (PAINT)**
The image can be transformed to resemble an oil painting of the video scene by pressing the button.

37. **Still Button (STILL)**
    An instant still or frozen image of the video can be obtained by pressing this button.

38. **Strobe Button (STROBE)**
    Video frames can be frozen intermittenly, to achieve a strobe effect, by pressing this button. The strobe interval can be adjusted by the Effect Interval Timer (39) from approximately 0.03 seconds to 2.1 seconds.

39. **Effect Interval Timer (TIME)**
    The time of interval for the Strobe effect, Multi effect and Trail effect can be adjusted by this timer. Also this timer works with the A/V Synchro function. In this case, the A/V Synchro interval applies to the Strobe effect.

40. **Multi Button (MULTI)**
    The video image on the monitor TV becomes multiple video images by pressing this button. When you press it first, 4-images are displayed. The second press makes it 9-images and the third press makes it 16-images. The fourth press returns the screen to a single image screen. The trail interval can be changed by the Effect Interval Timer (39) from approximately 0.06 seconds to 2.1 seconds.

41. **Trail Button (TRAIL)**
    The compressed video image trails one after another from small to larger and larger video images up to a maximum of 16 images. The start position can be selected by the Positioner Joystick (2) either to start from upper right or upper left. The trail interval can be changed by the Effect Interval Timer (39) from approximately 0.06 seconds to 2.1 seconds.

42. **A/V Synchro Control (LEVEL)**
    This control adjusts the trigger sensitivity of the A/V Synchro. When this control is turned to the MAX position, the A/V Synchro will be triggered by (a higher threshold) high level sounds. When this control is turned to the MIN position, the A/V Synchro will be triggered by (a lower threshold) low level sounds.

43. **A/V Synchro Button (A/V SYNCHRO)**
    Any combination of the digital effects (Nega, Mosaic, Mono, Paint,Still or Strobe) can be synchronized to pulse with certain levels of accompanying music or sound supplied to the WJ-MX50.

44. **DSK ON/OFF Button (ON)**
    This button is pressed to activate the Downstream Key (DSK) effect.

45. **DSK-A Button (A)**
    When this button is pressed, the Source Video Signal on the A-Bus will be the Key-Source Signal.

46. **Ext. Camera Button (EXT. CAMERA)**
    When this button is pressed, the external camera which is connected to the External Camera Input (121) or (122) can be used as the Key-Source Signal.

47. **Matte Button (MATTE)**
    When this button is pressed, the Matte Colour generated in the MATTE GENERATOR will be used as a Key-Fill Signal which is to be overlaid on the Key-Source Signal.

48. **White Button (WHITE)**
    When this button is pressed, the white colour will be used as a Key-Fill Signal which is to be overlaid on the Key-Source Signal.

49. **Edge Button (EDGE)**
    This button is used to edge on the Downstream Keyed images. Two types (shadow, border) and five kinds of edges are available by pressing this button repeatedly.
    Notes :
    1. When the Downstream Keyed images are white, you can colour the edge to any one of 9 colours, solid or graded by pressing the Graduation Button (12) and the Matte Colour Selector (13).
    2. When the Matte Coloured Downstream Keyed images are used, the edge colour is always black.

50. **Key Reverse Button (REVERSE)**
    The polarity of the Downstreamed Keyed Images will be reversed by pressing this button.

51. **DSK-B Button (B)**
    When this button is pressed, the Source Video Signal on the B-Bus will be the Key-Source Signal.

52. **High Level Key Slide Control (KEY LEVEL)**
    This slide control is used to adjust the sensitivity of the luminance level of the Key signal for higher level.

53. **Low Level Key Slide Control (KEY LEVEL)**
    This slide control is used to adjust the sensitivity of the luminance level of the Key signal for lower level.

54. **Repeat Effect Button (REPEAT)**
    Each of the multiple video images will be scanned one after another repeatedly by pressing this button.

55. **Once Only Button (ONCE)**
    Each of the multiple video images will be scanned one time only by pressing this button. It will be frozen after that.

56. **Frame Button (FRAME)**
    When this button is pressed the Digital Effected Image is reproduced as a frame video image. This feature is applied to Still, Strobe, Multi and Trail functions. And this button is used to remove the image vibration.

Note :

The difference between on and off of this button.

FRAME BUTTON	Output Signal	Resolution
ON	2-field	Standard
OFF	1-field	Reduced

57. **Effect-B Button (B)**
The Source Video Signal on B-bus will receive the Digital Effect by pressing this button (if Effect ON/OFF Button (59) is first pressed).

58. **Effect A-Button (A)**
The Source Video Signal on A-bus will receive the Digital Effect by pressing this button (if Effect ON/OFF Button (59) is first pressed).

59. **Effect ON/OFF Button (ON)**
The selected Digital Effect function becomes operative by pressing this button.

60. **Square Wipe Button**
Four wipe patterns can be selected by pressing this button repeatedly · · · circle, oval, square and diamond. The Aspect Control (29) or the Positioner Joystick (2) can be used with these patterns.

61. **Mosaic Wipe Button**
The wiping becomes a mosaic-like pattern by pressing this button. Four kinds of pattern are available by repeatedly pressing this button.

62. **Split Wipe Button**
The video scene is split from the centre of the image by pressing this button. Three kinds of patterns are available by repeatedly pressing this button.

63. **Blinds Wipe Button (BLINDS)**
The video scene is wiped in a blinds pattern. Several wipe combinations using buttons (62), (64), (66), (68) and (70) are operative with this button.

64. **Triangle Wipe Button**
The video scene is wiped with a triangle shape. Four patterns are available.

65. **Pairing Wipe Button (PAIRING)**
A paired wipe scene can be obtained by pressing this button. The wipe buttons of (64), (66), (68) and (70) are operative with this button.

66. **Diagonal Wipe Button**
The video scene is wiped with a diagonal shape. Four patterns are available.

67. **Multi Wipe Button (MULTI)**
The wiped pattern can be multipled by pressing this button repeatedly. The effect of the multiplication depends on the wiped pattern.

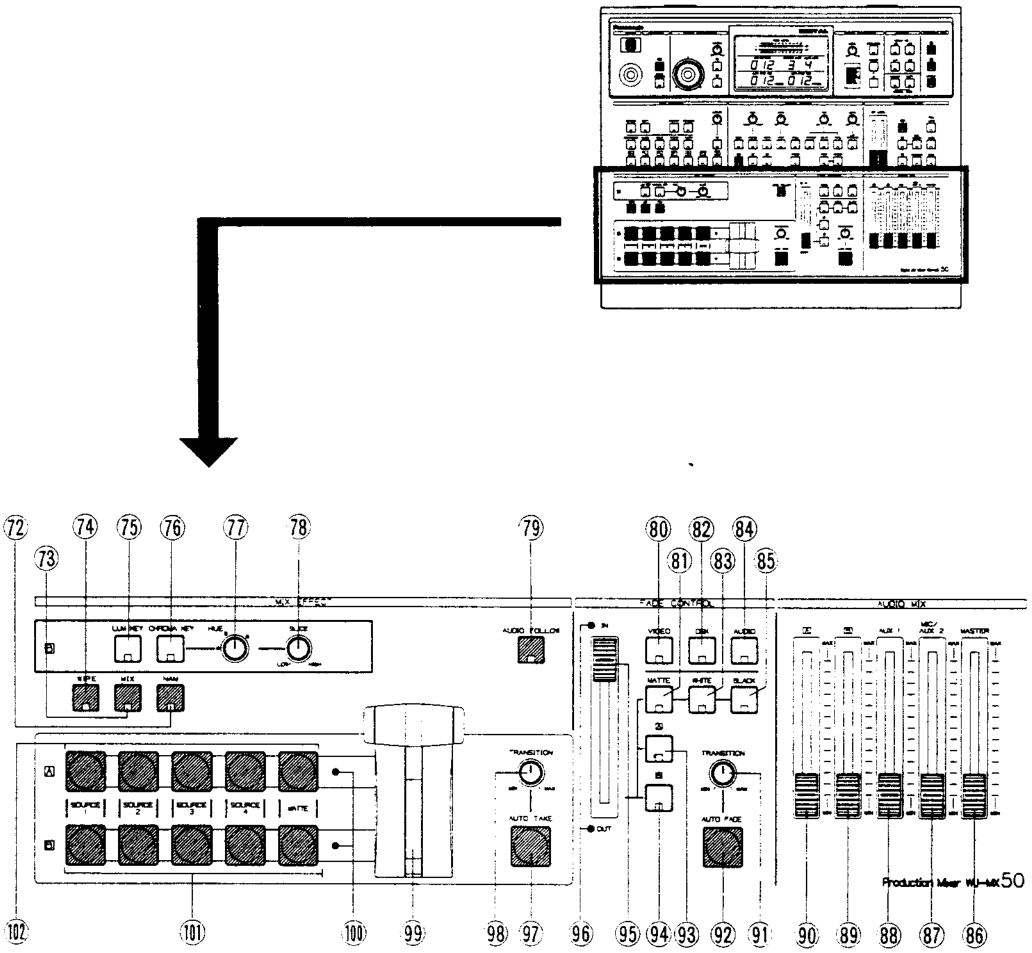
68. **Corner Wipe Button**
The video scene is wiped with a square shape from the corner of the monitor screen. Four kinds of patterns are available.

69. **Slide Button (SLIDE)**
The wiped scene slides into the monitor screen by pressing this button once. Both wiped scenes slide in and out by pressing this button a second time.

70. **Straight Wipe Button**
The video scene is wiped with a straight line. Four patterns are available.

71. **Compression Button (COMPRESSION)**
The compressed video scene is wiped into the monitor screen by pressing this button once. The compressed video scenes are wiped in and out of the monitor screen by pressing this button a second time.

■TOP VIEW 3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84
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LUM KEY
CHROMA KEY
HUE
SLICE
WIPE
MIX
NAM
AUDIO FOLLOW
VIDEO
DSK
AUDIO
MATTE
WHITE
BLACK
AUDIO MIX
SOURCE 1
SOURCE 2
SOURCE 3
SOURCE 4
MATTE
TRANSITION
AUTO TAKE
AUTO FADE
OUT
MASTER
Production Mixer WJ-MX50
102
101
100
99
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86

72. **NAM Select Button (NAM)**
NAM (Non Additive Mix) effect is obtained by pressing this button and the Mix/Wipe Lever (99) is to be positioned at centre. The darker area on the B-bus image and the A-bus image are replaced at relative levels by the lighter areas of each other, i.e. the stronger (lighter) images from either input replace the weaker (darker) ones.

73. **Mix Select Button (MIX)**
This button is pressed to obtain a Mix Effect between the A-bus Source Video Signal and the B - bus Source Video Signal.

74. **Wipe Select Button (WIPE)**
This button is pressed to obtain a Wipe effect between the A-bus Source Video Signal and the B-bus Source Video Signal using the settings of the Wipe Pattern Select Buttons.

75. **Luminance Key Select Button (LUM KEY)**
The Luminance Key effect is obtained by pressing this button and the adjustment of the Slice Control (78). The B - bus signal must be the key signal.

76. **Chroma Key Select Button (CHROMA KEY)**
The Chroma Key effect is obtained by pressing this button and the adjustment of the Hue Control (77) and Slice Control (78). The B-bus signal must be the Key signal.

77. **Hue Control (HUE)**
This control is used to adjust the Hue of the Chroma Key effect.

78. **Slice Control (SLICE)**
This control is used to adjust the slice level of the luminance signal for the Luminance Key effect or the chroma signal for the Chroma Key effect.

79. **Audio Follow Button (AUDIO FOLLOW)**
When this button is pressed, the audio on the A-bus and B-bus can be changed according to the relative percentage position of the Mix/Wipe Lever (99).

80. **Video Fade Button (VIDEO)**
When this button is pressed, the Wiped or Mixed video signal will fade-in or fade-out by using the Fade Control (95).

81. **Matte Fade Button (MATTE)**
The video fade signal is faded out to the selected Matte Colour by pressing this button.

82. **DSK Fade Button (DSK)**
When this button is pressed, the Downstream Keyed signal will fade-in or fade-out by using the Fade Control (95).

83. **White Fade Button (WHITE)**
The video fade signal is faded out to White by pressing this button.

84. **Audio Fade Button (AUDIO)**
When this button is pressed, the audio will fade-in or fade-out by using the Fade Control (95).

85. **Black Fade Button (BLACK)**
The video fade signal is faded out to Black by pressing this button.

86. **Master Audio Fader (MASTER)**
The total audio level of the mixed audio signals is adjusted by sliding this fader.

87. **Mic/Aux-2 Audio Fader (MIC/AUX2)**
The audio level connected to the Microphone Jack (106) or the Auxiliary Audio Input-2 Jack (136) can be adjusted by sliding this fader. Select the Mic or Aux-2 audio signal by the Mic/Aux-2 Switch.(105).

88. **Aux-1 Audio Fader (AUX1)**
The audio level connected to the Auxiliary Audio Input-1 Jack (137) can be adjusted by sliding this fader.

89. **B-bus Audio fader (B)**
The audio level from the B-bus source inputs can be adjusted by sliding this fader.

90. **A-bus Audio Fader (A)**
The audio level from the A-bus source inputs can be adjusted by sliding this fader.

91. **Auto Fade Transition Control (TRANSITION)**
This control adjusts the automatic fading time from 0 to 510 frames for every 2 frames.
This amount is then displayed on the "Auto Fade Time Indicator" (21).

92. **Auto Fade Button (AUTO FADE)**
When this button is pressed, the automatic fade sequence for the selected input(s) begins, with the time set by the Auto Fade Transition Control (91). This button remains lit during Auto-fading.

93. **A-bus Fade Button (A)**
The video fade signal is faded out to the A-bus video signal by pressing this button.

94. **B-bus Fade Button (B)**
The video fade signal is faded out to the B-bus video signal by pressing this button.

95. **Fade Control**
The fade-in and fade-out can be manually controlled by using this control.

96. **Fade LED (IN/OUT)**
When the IN (OUT) LED is continuously turned on, the fade is In (Out) situation. When the IN (OUT) LED is blinking, the fade-in (fade-out) is currently incomplete.

97. **Auto Take Button (AUTO TAKE)**
The Auto Take effect - Automatic Wipe/Mix/NAM - can be executed by pressing this button. This button lights during the Auto-Take interval.

98. **Auto Take Transition Control (TRANSITION)**
The Auto Take interval time can be adjusted by this control from 0 to 510 frames for every 2 frames.

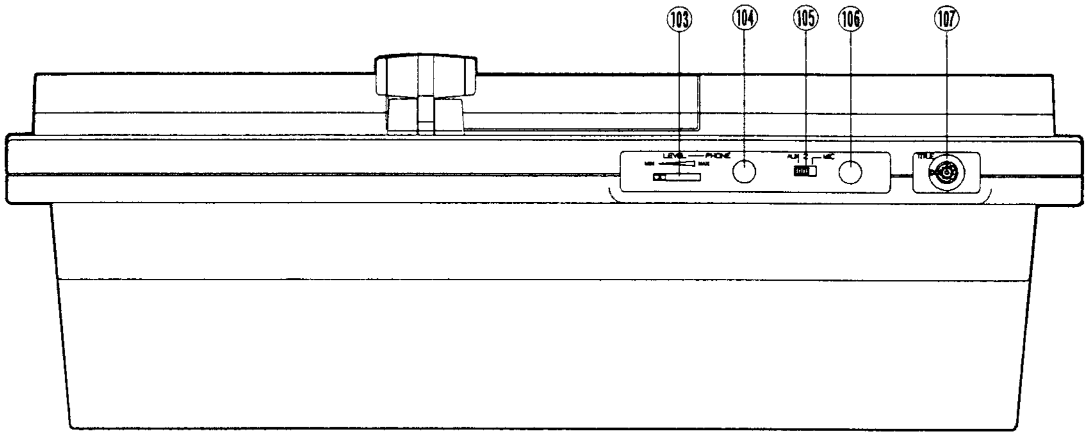
99. **Mix/Wipe Lever**
In the wipe mode, manually moving this lever between the A-bus and B-bus will increase the relative portion of each bus signal, according to the option selected. In the mix mode, the audio/video are together switched between A-bus and B-bus.

100. **Mix/Wipe LED**
When the A-bus (or B-bus) LED is continuously turned on, the Wipe/Mix/NAM is A-bus (or B-bus) situation. When the A-bus (or B-bus) LED is blinking, the Wipe/Mix/NAM effect is only partially completed on the A-bus (or B-bus) side.

101. **B-bus Buttons (B)**
These buttons are used to select the desired audio/video signals allocated to the B-bus input. The Source 1/2/3/4 corresponds to the Source 1/2/3/4 audio/video inputs on the rear panel of the instrument.

102. **A-bus Buttons (A)**
These buttons are used to select the desired audio/video signals allocated to the A-bus input. The Source 1/2/3/4 corresponds to the Source 1/2/3/4 audio/video inputs on the rear panel-of the instrument.

■ FRONT VIEW


103
104
105
106
107
LEVEL
PHONE
MIN
MAX
AUX
2
MIC
TITLE

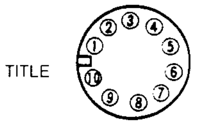
103. Headphone Level Control (LEVEL)
The audio level of the headphone can be adjusted with this control.

104. Headphone Jack (PHONES)
Optional headphone can be connected to this jack.

105. Mic/Aux-2 Switch (AUX 2/MIC)
When the Mic/Aux-2 Audio Fader (87) is desired, select either Mic or Aux-2 with this switch.

106. Microphone Jack (MIC)
Optional microphone can be connected to this jack.

107. Title Input Connector (TITLE)
This connector is used to connect the optional Character Generator WJ-KB50 (recommended).
The pin numbers are stated below.
(1) : Character IN
(2) : Not used
(3) : Ground
(4) : Not used
(5) : Sync out
(6) : Not used
(7) : Ground
(8) : +9V OUT
(9) : Ground
(10): ID


TITLE
1
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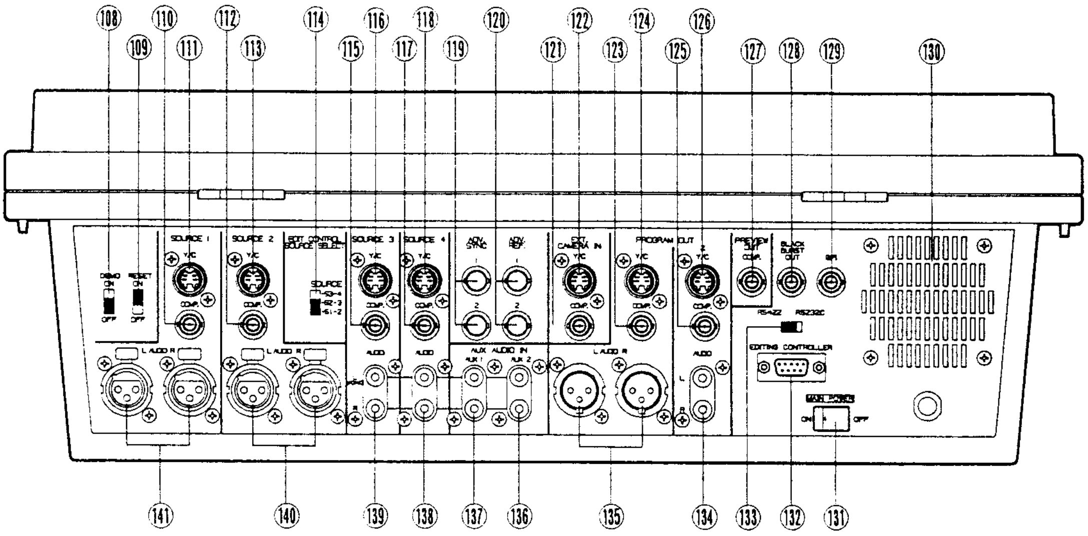
Front View

■ REAR VIEW



108. Demo ON/OFF Switch (DEMO ON/OFF)
When this switch is in the ON position, a preprogrammed mixer features demonstration takes place.

109. Reset ON/OFF Switch (RESET ON/OFF)
In case the power of this unit is turned on while this switch is in the ON position, the LED's on the panel light up as the factory preset. In case the power of this unit is turned on while this switch is in the OFF position, the LED's on the panel light up returnning to how they were.

110. Source1 COMP. Input Connector (SOURCE1/COMP.)
This connector accepts a 1.0 Vp-p/75 ohms composite video signal.

111. Source1 Y/C Input Connector (SOURCE1-Y/C)
This connector accepts the S-Video signal.

Note:

This input has a priority over that of the COMP Connector in the Source 1. If the S-Video signal and the composite signal are both supplied to the Source1 at the same time, only the S-Video signal is used as a Source1 Video signal.

112. Source 2 COMP. Input Connector (SOURCE2/COMP.)
This connector accepts a 1.0 Vp-p/75 ohms composite video signal.

113. Source 2 Y/C Input Connector (SOURCE2-Y/C)
This connector accepts the S-Video signal.

Note:

This input has a priority over that of the COMP. Connector in the Source 2. If the S-Video signal and the composite signal are both supplied to the Source 2 at the same time, only the S-Video signal is used as a Source 2 Video signal.

114. Source Selection Switch (EDIT CONTROL SOURCE SELECT, SOURCE)
This switch is used to choose between the Source signals for the Editing Controller AG-A800. The relation between this switch and the source selection switches (P1, P2, AUX) on the AG-A800 is as follows.

WJ-MX50 SOURCE	AG-A800		
	P1	P2	AUX
S1-2	Source 1	Source 2	Source 3
S2-3	Source 2	Source 3	Source 4
S3-4	Source 3	Source 4	Source 1

Example :

If this switch is in the S1-2 position, Source1 is selected when P1 button is pressed.

115. Source 3 COMP. Input Connector (SOURCE3/COMP.)
This connector accepts a 1.0 Vp-p/75 ohms composite video signal.

116. Source 3 Y/C Input Connector (SOURCE4-Y/C)
This connector accepts the S-Video signal.
Note:
This input has a priority to that of COMP. Connector in the Source 3. If the S-Video signal and the composite signal are both supplied to the Source 3 at the same time, only the S-Video signal is used as a Source 3 Video signal.

117. Source 4 COMP. Input Connector (SOURCE4/COMP.)
This connector accepts a 1.0 Vp-p/75 ohms composite video signal.

118. Source 4 Y/C Input Connector (SOURCE3-Y/C)
This connector accepts the S-Video signal.
Note:
This input has a priority to that of COMP. Connector in the Source 4. If the S-Video signal and the composite signal are both supplied to the Source 4 at the same time, only the S-Video signal is used a Source 4 Video signal

119. Advance Sync Output Connectors (ADV SYNC)
In the A/B Roll Editing System, the Advance Sync signal from this connector should be supplied to the playback VTR's which do not have the Time Base Corrector (T.B.C.) inside.
Note:
The enough editing accuracy may not be obtained without this signal. This signal is necessary for the Compression function and Trail function when it is recorded on the VTR.

120. Advance Reference Output Connectors (ADV REF)
In the A/B Roll Editing System, the Advance Reference Signal from this connector should be supplied to the playback VTR's which have the Time Base Corrector (T.B.C.) inside (or AUX video source).
Note:
The enough editing accuracy may not be obtained without this signal. This signal is necessary for the Compression function and Trail function when it is recorded on the VTR.

121. External COMP. Input Connector (EXT CAMERA IN/COMP.)
The external camera to be used as a Key Source is connected to this connector when the camera has the composite video signal.

122. External Y/C Input Connector (EXT CAMERA IN/Y/C)
The external camera to be used as a Key Source is connected to this connector when the camera has a S-Video Signal.

123. Program Out-1 COMP. Output Connector (PROGRAM OUT 1/COMP.)
The Program Output Signal-1of the composite video signal is provided via this connector.

124. Program Out-1 Y/C Output Connector (PROGRAM OUT 1/Y/C)
The Program Output Signal-1 of the S-Video signal is provided via this connector.

125. Program Out-2 COMP. Output Connector (PROGRAM OUT 2/COMP.)
The Program Output Signal-2 of the composite video signal is provided via this connector.

126. Program Out-2 Y/C Output Connector (PROGRAM OUT 2/Y/C)
The Program Output Signal-2 of the S-Video signal is provided via this connector.

127. Preview Output Connector (PREVIEW OUT, COMP.)
The effected video of the composite video signal is obtained at this connector regardless of the selection of the Program Out Buttons (15), (16), (17).

128. Black Burst Output Connector (BLACK BURST OUT)
The Black Burst Signal for use with system synchronization is provided via this connectorto the Editing Controller.

129. GPI Input Connector (GPI)
In the A/B Roll Editing System, the GPI signal (General Purpose Interface) may be used in order to make an interface between the WJ-MX50 and the Editing Controller.

130. Cooling Fan

131. Main Power Switch (MAIN POWER)
The unit becames stand-by mode by turning on this switch. Unless this switch is turned on, the unit will not be on even if the (front panel) Power ON/OFF Button (1) is pressed.
Note :
The unit becomes on without pressing Power ON/OFF Switch (1) by turning Main Power Switch (131) on if the Reset ON/OFF Switch (109) had been set to the OFF position. This takes place leaving the Main Power Switch (131) off for more than a few days.

132. Editing Control Connector
(EDITING CONTROLLER)
This connector is used for connecting with the Editing Controller AG-A800 or the Modem Unit.

133. RS422/RS232C Selection Switch
(RS422/RS232C)
When using an external product such as the Editing Controller AG-A800 or the Modem Unit, this switch is used to make the selection. In the case of the Editing

134. Program Out-2 Audio Output Jacks
(PROGRAM OUT 2/AUDIO, L/R)
The audio output signals of R-channel and L-channel on the Program Output 2 are provided via these jacks.

135. Program Out-1 Audio Output Connectors
(PROGRAM OUT 1/AUDIO L/R)
The audio output signals of R-channel and L-channel on the Program Output1 are provided via these XLR-connectors.

136. Auxiliary Audio Input-2 Jacks
(AUX AUDIO IN, AUX2)
The auxiliary audio input 2 signal can be inputted via these jacks. When the audio is supplied to the L-channel, this audio is supplied to the R-channel (mono-mode) internally. When the audio is also supplied to the R-channel, this audio is used for the R-channel only.

137. Auxiliary Audio Input-1 Jacks
(AUX AUDIO IN, AUX1)
The auxiliary audio input 1 signal can be inputted via these jacks. When the audio is supplied to the L-channel, this audio is supplied to the R-channel (mono-mode) internally. When the audio is also supplied to the R-channel, this audio is used for the R-channel only.

138. Source 4 Audio Input Jacks
(SOURCE 4/AUDIO L/R)
Source 4 Audio Input signal can be supplied via these jacks. When the audio is supplied to the L-channel, this audio is supplied to the R-channel (mono-mode) internally. When the audio is also supplied to the R-channel, this audio is used for the R-channel only.

139. Source 3 Audio Input Jacks
(SOURCE 3/AUDIO IN, AUX1)
Source 3 Audio Input signal can be supplied via these jacks. When the audio is supplied to the L-channel, this audio is also supplied to the R-channel (mono-mode) internally. When the audio is also supplied to the R-channel, this audio is used for the R-channel only.

140. Source 2 Audio Input Connectors
(SOURCE 2/AUDIO L/R)
The Source 2 Audio Input Signal can be supplied via these XLR-connectors.

141. Source1 Audio Input Connectors
(SOURCE 1/AUDIO L/R)
The Source1 Audio Input Signal can be supplied via these XLR-connectors.

ADJUSTMENT PROCEDURE

1. Test Equipment Required

The following test equipments are required for adjustment.

- Oscilloscope (50 MHz band width, dual trace, delayed with three probes)
- Vector scope (Tektronix 1751 or equivalent)
- Frequency counter
- Waveform monitor
- Under scanned color video monitor
- Digital voltmeter
- Y/C Test Signal Generator
- SC-H Meter
- Audio signal generator
- Audio level meter

2. Disassembling Procedure for Adjustment

1. Remove 14 case screws.

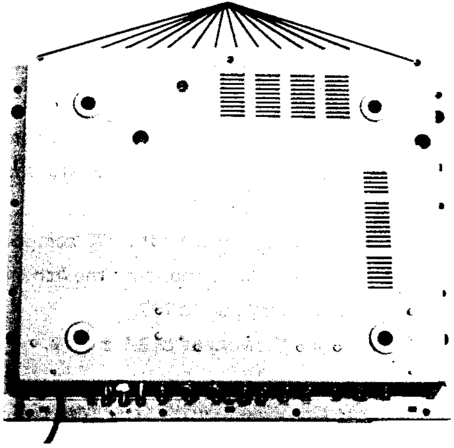

Remove screws

Fig 2-1

2. Open the front panel and secure it using arm.

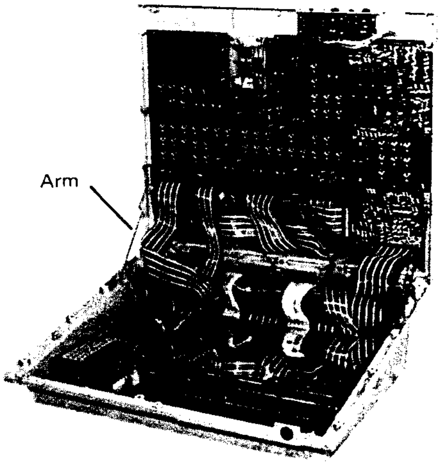


Fig. 2-2

3. Remove 2 screws fixing the PCB and remove 4 screws fixing the shield case.

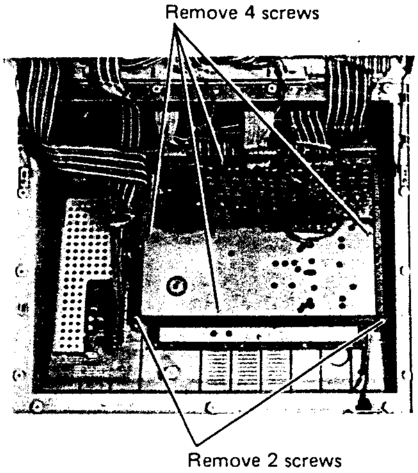

Remove 4 screws
Remove 2 screws

Fig 2-3

4. Stand up the PCB and hook the hinges to the metal amgles. Remove the shield case using screw driver.

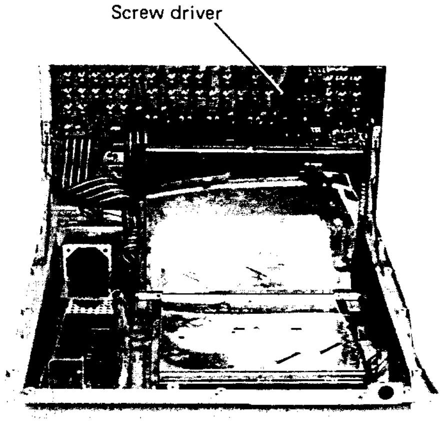

Screw driver

Fig 2-4

5. Remove 2 screws fixing PCB and remove 6 screws fixing the shield case.

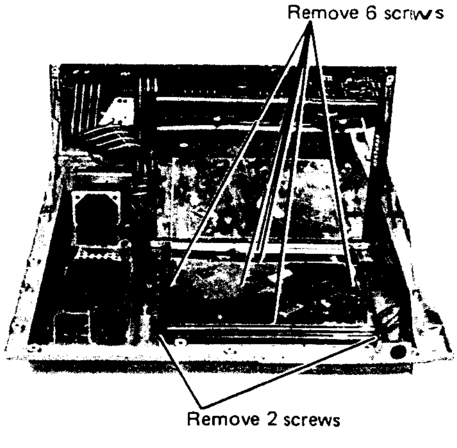

Remove 6 screws
Remove 2 screws

Fig 2-5

6. Slide the PCB to the front and stand up the PCB to hook the hinges to the metal angles. Remove the shield case using screw driver.

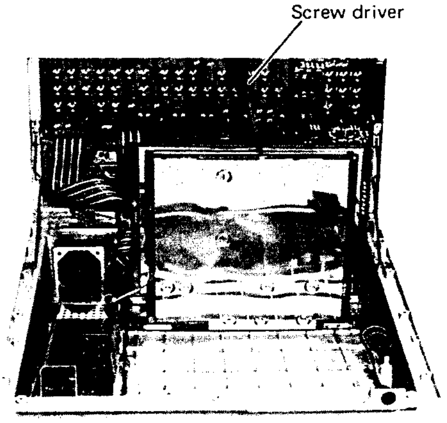
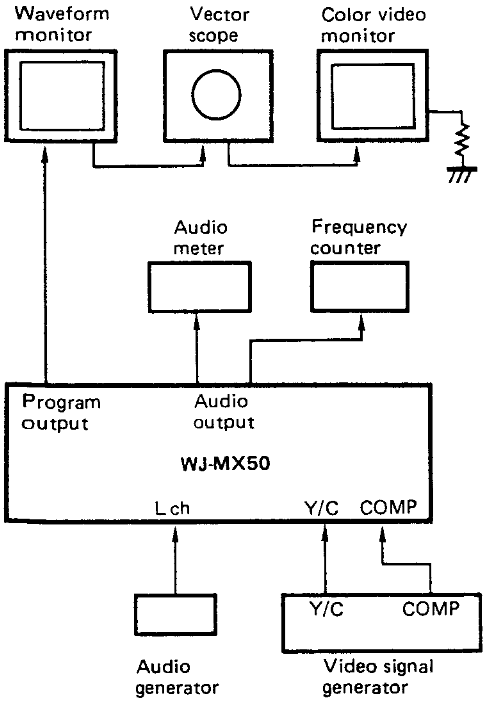

Screw driver

Fig 2-6

3. Adjustment Procedure


Waveform monitor
Vector scope
Color video monitor
Audio meter
Frequency counter
Program output
Audio output
WJ-MX50
L ch
Y/C
COMP
Y/C
COMP
Audio generator
Video signal generator

3-1 5V Adjustment

Test point :	**TP25**	**Analog board**
Adjust :	**VR1**	**Power board**

- Connect the digital voltmeter to TP25.
- Adjust VR1 to obtain the voltage of 5 ± 0.02V.

3-2 FSC Adjustment

Test point :	**TP8**	**Digital board**
Adjust :	**VR1**	**Digital board**

- Connect the frequency counter to TP8.
- Adjust VR1 to obtain the frequency of 4.433639 MHz ± 5Hz.

Note :
1. This adjustment should be made after 10 min. warm up of the product.
2. The response of frequency changing will be slow.

3-3 READ VCO Adjustment

Test point :	**TP3**	**Digital board**
Adjust :	**L24**	**Digital board**

- Connect the digital voltmeter to TP3.
- Adjust L24 to obtain the voltage of 2.1 ± 0.1V.

3-4. Ach VCO Adjustment

Test point :	**TP7**	**Digital board**
Adjust :	**L17**	**Digital board**

- Supply the color bar signal with the Y/C components to the source Input of WJ-MX50 and select the Ach input.
- Connect the digital voltmeter to TP7.
- Adjust L17 to obtain the voltage of 2.1 ± 0.1V.

3-5. Bch VCO Adjustment

Test point :	**TP6**	**Digital board**
Adjust :	**L12**	**Digital board**

- Supply the color bar signal with the Y/C components to the source Input of WJ-MX50 and select the Bch input.
- Connect the digital voltmeter to TP6.
- Adjust L12 to obtain the voltage of 2.1 ± 0.1V.

3-6. Program Y gain Adjustment

Test point :	**Y/C Program Output**	**Rear Panel**
Adjust :	**VR26**	**Analog board**

- Output the internal color bar signal to the Y/C Program Output.
- Adjust VR26 so that the white level becomes 100 ± 2 IRE.

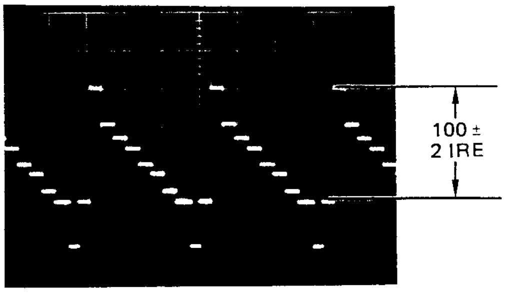


Fig-3-1

3-7. Program C Gain Adjustment

Test point :	**Y/C Program Output**	**Rear Panel**
Adjust :	**VR27**	**Analog board**

- Output the internal color bar signal to the Y/C Program Output.
- Adjust VR27 so that the burst level becomes 0.3 Vp-p.

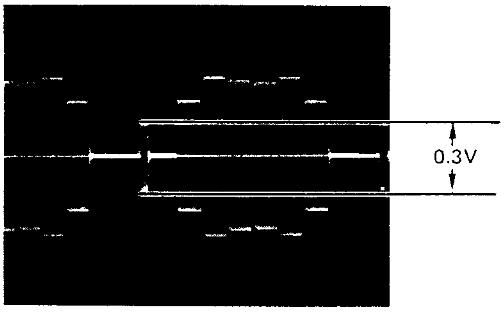


Fig-3-2

3-8. Program COMP Gain Adjustment

Test point :	**COMP. Program Output**	**Rear Panel**
Adjust :	**VR39**	**Analog board**

- Output the internal color bar signal to the COMP. Program Output.
- Adjust VR39 so that the white level becomes 100 ± 2IRE.

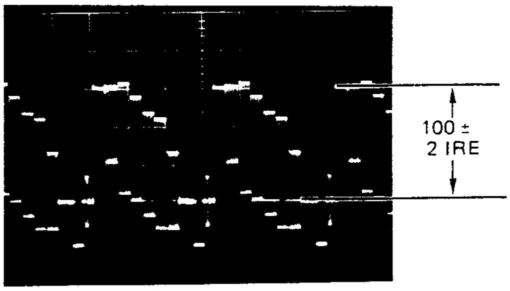


Fig-3-3

3-9. Preview Y Gain Adjustment

Test point :	**Y/C Preview Output**	**Rear Panel**
Adjust :	**VR28**	**Analog board**

- Output the internal color bar to the Y/C Preview Output.
- Adjust VR28 so that the white level becomes 100 ± 2 IRE.

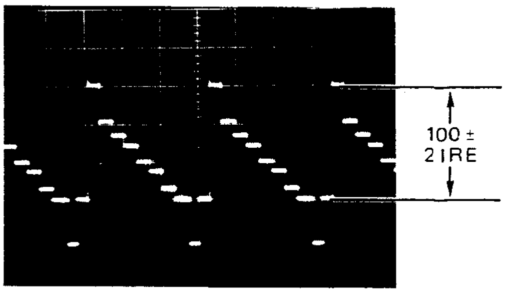


Fig-3-4

3-10. Preview C Gain Adjustment

Test point :	**Y/C Preview Output**	**Rear Panel**
Adjust :	**VR29**	**Analog board**

- Output the internal color bar to the Y/C Preview Output.
- Adjust VR29 so that the burst level becomes 0.3 Vp-p.

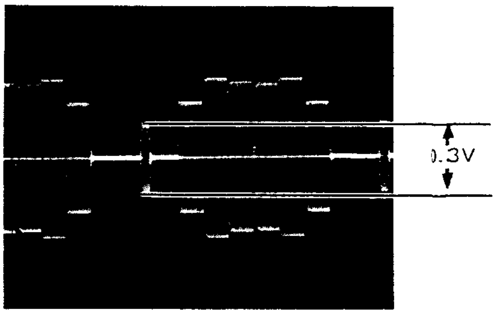


Fig-3-5

3-11. Program SC-H Adjustment

Test point :	**COMP. Program Output**	**Rear Panel**
Adjust :	**VR33**	**Analog board**

- Output the internal color bar to the COMP Program Output.
- Adjust VR33 by observing the SC-H meter (Vector scope. Tektronix 1751 or equivalent) to obtain the phase of 0 ± 5°.

3-12. Preview SC-H Adjustment

Test point :	**COMP. Program Output**	**Rear Panel**
Adjust :	**VR31**	**Analog board**

- Output the internal color bar to the COMP. Program Output.
- Adjust VR31 by observing the SC-H meter (Vector scope. Tektronix 1751 or equivalent) to obtain the phase of 0 ± 5°.

3-13. Black Burst SC-H Adjustment

Test point :	**COMP. Program Output**	**Rear Panel**
Adjust :	**VR34**	**Analog board**

- Output the internal color bar to the COMP. Program Output.
- Adjust VR34 by observing the SC-H meter (Vector scope. Tektronix 1751 or equivalent) to obtain the phase of 0 ± 5°.

3-14. ADV REF SC-H Adjustment

Test point :	**COMP. Program Output**	**Rear Panel**
Adjust :	**VR32**	**Analog board**

- Output the internal color bar to the COMP. Program Output.
- Adjust VR32 by observing the SC-H meter (Vector scope. Tektronix 1751 or equivalent) to obtain the phase of 0 ± 5°.

3-15. Ach FVCXO Adjustment

Test point :	**TP18**	**Analog board**
Adjust :	**CT3**	**Analog board**

- Connect the frequency counter to the TP18.
- Adjust CT3 without Supplying any input signal to the WJ-MX50 to obtain the frequency of 4.433619 MHz ± 5 Hz.

3-16. Ach Burst-Gate-Pulse Width Adjustment

Test point :	**TP17**	**Analog board**
Adjust :	**VR9**	**Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with the Y/C components to the Y/C Source Input of the WJ-MX50 and select the Ach input.
- Connect the oscilloscope to TP17.
- Adjust VR9 to obtain the pulse width of 7.8 μsec.

  Note : Use TP23 for the trigger for the oscilloscope.

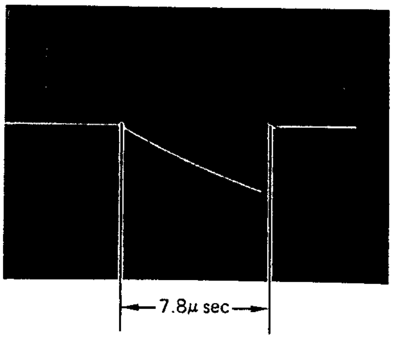


Fig 3-6

3-17. Ach Carrier Balance Adjustment

Test point :	**Y/C Program Output**	**Rear Panel**
Adjust :	**VR20, VR22**	**Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with the Y/C components to the Y/C Source Input of the WJ-MX50 and select the Ach input.
- Increase the GAIN of the vector scope.
- Adjust VR20 and VR22 so that the vector falls into the center of the vector scope.

  Note : The Color Correction of the WJ-MX50 should be off.

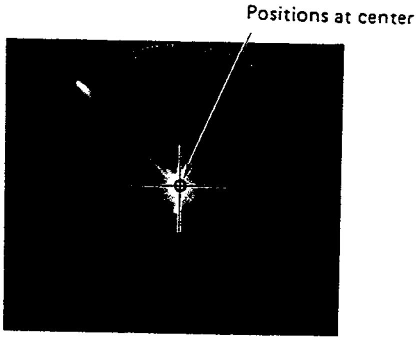


Fig 3-7

3-18. Ach Pedestal Adjustment

Test point :	**Y/C Program Output**	**Rear Panel**
Adjust :	**VR21**	**Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with the Y/C components to the Y/C Source Input of the WJ-MX50 and select the Ach input.
- Adjust the VR21 so that the black level of the RAMP signal becomes 0^{+1}_{-0} IRE.

  Note : The black level of the RAMP signal should not be lower than 0 IRE.

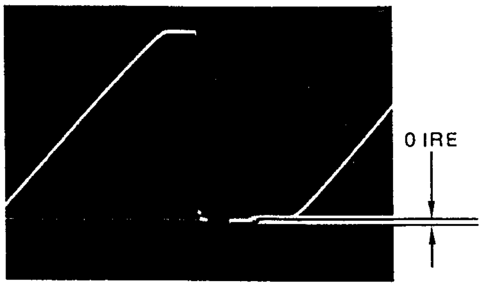


Fig 3-8

3-19. Ach Y GAIN

Test point :	**Y/C Program Output**	**Rear Panel**
Adjust :	**VR15**	**Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with the Y/C components to the Ach input.
- Adjust VR15 so that the white level becomes 100 ± 2 IRE.

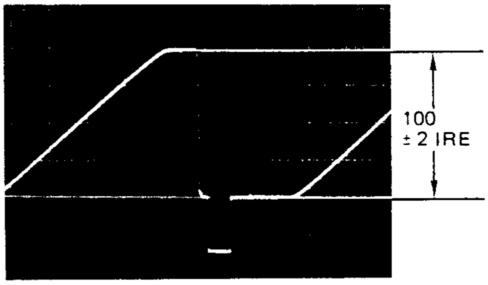


Fig 3-9

3-20. Ach Color Adjustment

Test point :	**Y/C Program Output**	**Rear Panel**
	TP13	**Analog board**
Adjust :	**VR10, VR11, VR16**	**Analog board**

- Supply the Color Bar signal with the Y/C components to the Ach input.
- Adjust VR10 (R-Y Gain), VR16 (B-Y Gain) by observing the vector scope so that each vector positions in each color area (⊞).
- Connect the oscilloscope to TP13.
- Adjust VR11 (Phase) so that the waveform coincides.

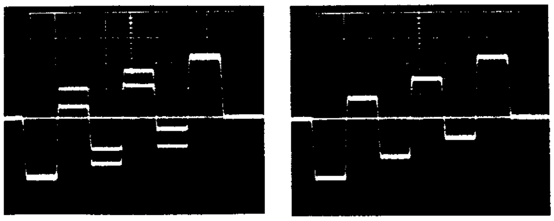

NO GOOD GOOD

Fig 3-10

Note : Supply the Black Burst Signal from WJ-MX50 to the vector scope for the reference sync signal.

3-21. Bch FVCXO Adjustment

Test point :	**TP20**	**Analog board**
Adjust :	**CT4**	**Analog board**

- Connect the frequency counter to the TP20.
- Adjust CT4 without supplying any input signal to the WJ-MX50 to obtain the frequency of 4.433619 MHz ± 5 Hz.

3-22. Bch Burst-Gate-Pulse Width Adjustment

Test point :	**TP19**	**Analog board**
Adjust :	**VR12**	**Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with the Y/C components to the Y/C Source Input of the WJ-MX50 and select the Bch input.
- Connect the oscilloscope to TP19.
- Adjust VR12 to obtain the pulse width of 7.8 μsec.

  Note : Use TP24 for the trigger for the oscilloscope.

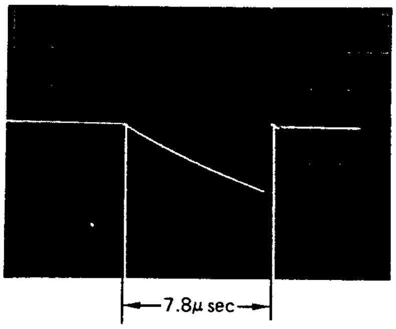


Fig 3-11

3-23. Bch Carrier Balance Adjustment

Test point :	**Y/C Program Output**	**Rear Panel**
Adjust :	**VR23, VR25**	**Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with the Y/C components to the Y/C Source Input of the WJ-MX50 and select the Bch input.
- Increase the GAIN of the vector scope.
- Adjust VR23 and VR25 so that the vector falls into the center of the vector scope.

  Note : The Color Correction of the WJ-MX50 should be off.

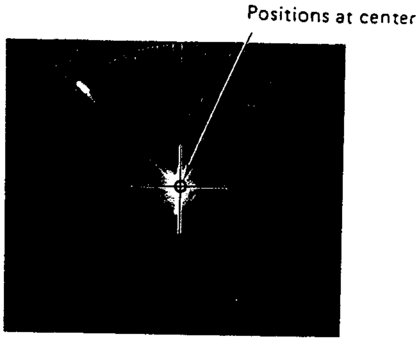


Fig 3-12

3-24. Bch Pedestal Adjustment

Test point :	**T/C Program Output**	**Rear panel**
Adjust :	**VR24**	**Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with the Y/C components to the Y/C Source Inputs of both Ach and Bch.
- Select the horizontal wipe pattern (◧) and wipe the signal at the black portion.
- Adjust VR24 so that the two black level of the RAMP signal matches at 0^{+1}_{-0} IRE.

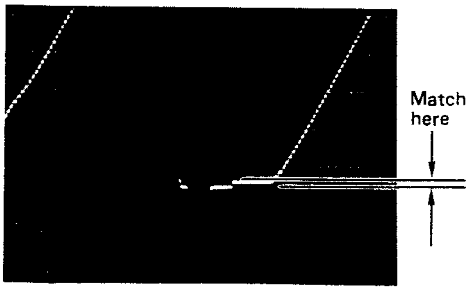


Fig. 3-13

3-25. Bch Y Gain

Test point :	**Y/C Program Output**	**Rear panel**
Adjust :	**VR18**	**Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with the Y/C components to the Y/C Source Inputs of both Ach and Bch.
- Select the horizontal wipe pattern (◧) and wipe the signal at the white portion.
- Adjust VR18 so that the two white level of the RAMP signal matches at 100 ± 2 IRE

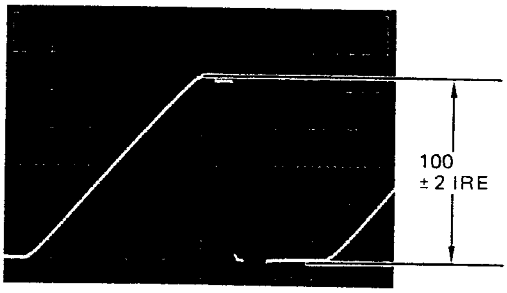
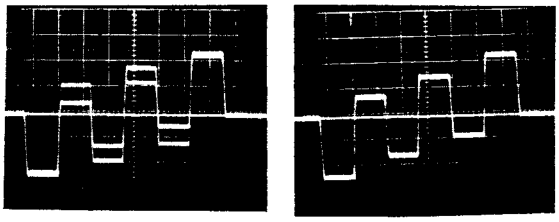


Fig 3-14

3-26. Bch Color Adjustment

Test point :	**Y/C Program Output**	**Rear panel**
	TP16	**Analog board**
Adjust :	**VR13, VR14, VR19** **VR10, VR11, VR16**	**Analog board**

- Supply the Color Bar signal with the Y/C components to the Y/C Source Inputs of both Ach and Bch.
- Adjust VR13 (R-Y Gain), VR19 (B-Y Gain) by observing the vectorscope so that each vecto positions in each color area (⊞).
- Connect the oscilloscope to TP16.
- Adjust VR14 (Phase) so that the waveform coincides.



NO GOOD GOOD

Fig 3-15

Note : Supply the Black Burst Signal from WJ-MX50 to the vector scope for the reference sync signal.

- Select the vertical wipe pattern (⬒) and wipe the signal at the center of the picture.
- Adjust VR10, VR11,VR13 VR14, VR16 and VR19 so that every vector positions to the respective color area

3-27. Bch COMP. Gain Adjustment

Test point : **Y/C Program Output** **Rear panel**
Adjust : **VR5** **Analog board**

- Supply the RAMP signal (Y = 100 IRE, APL = 50%) with Y/C components to the Y/C Source Input of Ach and the composite RAMP signal to the COMP. Source Input of Bch.
- Select the horizontal wipe pattern (◧) and wipe the signal at the black portion.
- Adjust VR5 so that the two white level of the RAMP signal matches at 100 ± 2 IRE.

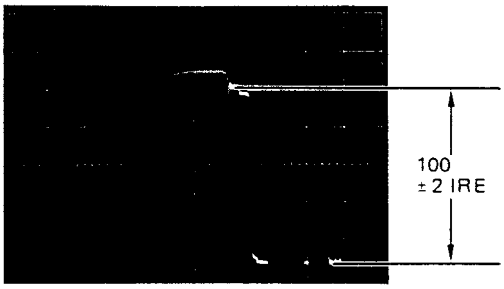


Fig 3-16

3-28. Ach COMP. Gain Adjustment

Test point : **COMP. Program Output** **Rear panel**
Adjust : **VR1** **Analog board**

- Supply the composite RAMP signal (Y = 100 IRE, APL = 50%) to the COMP. Source Input of both Ach and Bch.
- Select the horizontal wipe pattern (◧) and wipe the signal at the white portion.
- Adjust VR1 so that the two white level of the RAMP signal matches at 100 ± 2 IRE.

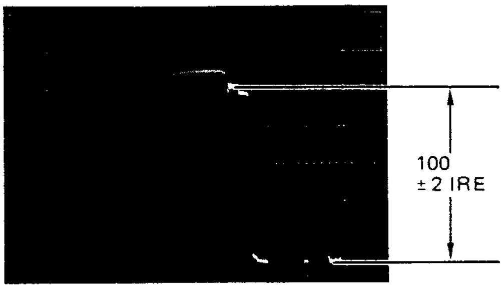


Fig 3-17

3-29. Ach/Bch H-phase Adjustment

Test point : **COMP. Program Output** **Rear panel**
Adjust : **VR17** **Analog board**

- Supply the composite CROSS HATCH signal to COMP. Source Inputs of both Ach and Bch.
- Select the MIX mode of the WJ-MX50 and mix both Ach and Bch signals with 50/50 percent. (Move the Mix/Wipe Lever at center position)
- Adjust VR17 so that the signal level becomes maximum.

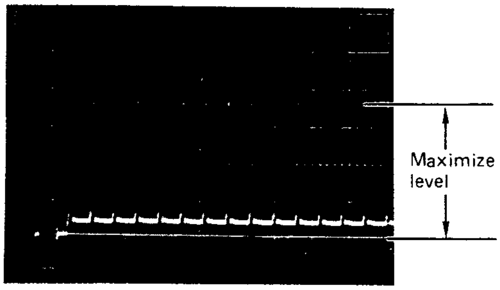


Fig 3-18

3-30. Wipe Balance Adjustment

Before performing this adjustment, setup the WJ-MX50 as follows.

1) Turn off the power of the WJ-MX50.
2) Turn on the power of the WJ-MX50 while pressing the Event Number Buttons 1/5, 3/7 and the MEMORY Button simultaneously.
   The AUTO TAKE button and AUTO FADE Button are turned to red.

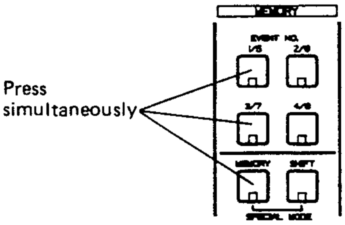


Fig 3-19

Adjust the Wipe Balance as follows.

Test point :	**AUTO TAKE TIME indicator**	**Front panel**
	AUTO FADE TIME indicator	**Front panel**
Adjust :	**VR312, VR313**	**Switch board**

- Press the WIPE Button on the WJ-MX50. The LED starts blinking.
- Turn the Mix/Wipe Lever to the Bch position and keep the clearance of 8mm between the Lever and the panel.

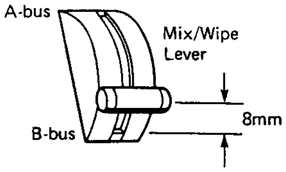


Fig 3-20

- Adjust the VR312 so that the Auto Take Time indicator shows 255 frames.
- Turn the Mix/Wipe Lever to the Ach position and keep the clearance of 6mm between the Lever and the panel.

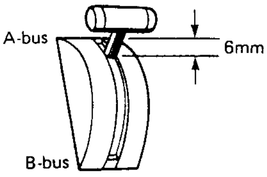


Fig 3-21

- Adjust the VR313 so that the Auto Take Time indicator shows 0 frame.
- Turn the power off then on the WJ-MX50 to initialize the unit.
- Confirm that the ONE-WAY wipe pattern functions correctly.
- Adjust both TRANSITION controls for AUTO TAKE and AUTO FADE to indicate 200 frames. Confirm that these indicators are not change by operating the Mix/Wipe Lever.

3-31. Audio Rch Adjustment

Test point :	**Audio Level Indicator for Rch**	
Adjust :	**VR7**	**Audio board**

- Supply the audio signal (-18 dBs, 1 KHz) to the Lch of the SOURCE 3 audio input connector.
- Slide the A fader and the MASTER fader on the AUDIO MIX to the maximum position.
- Slide the FADE control to the IN position.
- Connect the audio level meter to the R or L channel of the Audio Program Output pin-connector.
- Adjust the output level of the audio signal generator so that the audio level meter reads -6 dBs.
- Adjust VR7 so that the R channel of the AUDIO LEVEL indicator of WJ-MX50 indicates 0 dB. (just light off the 2 dB indicator)

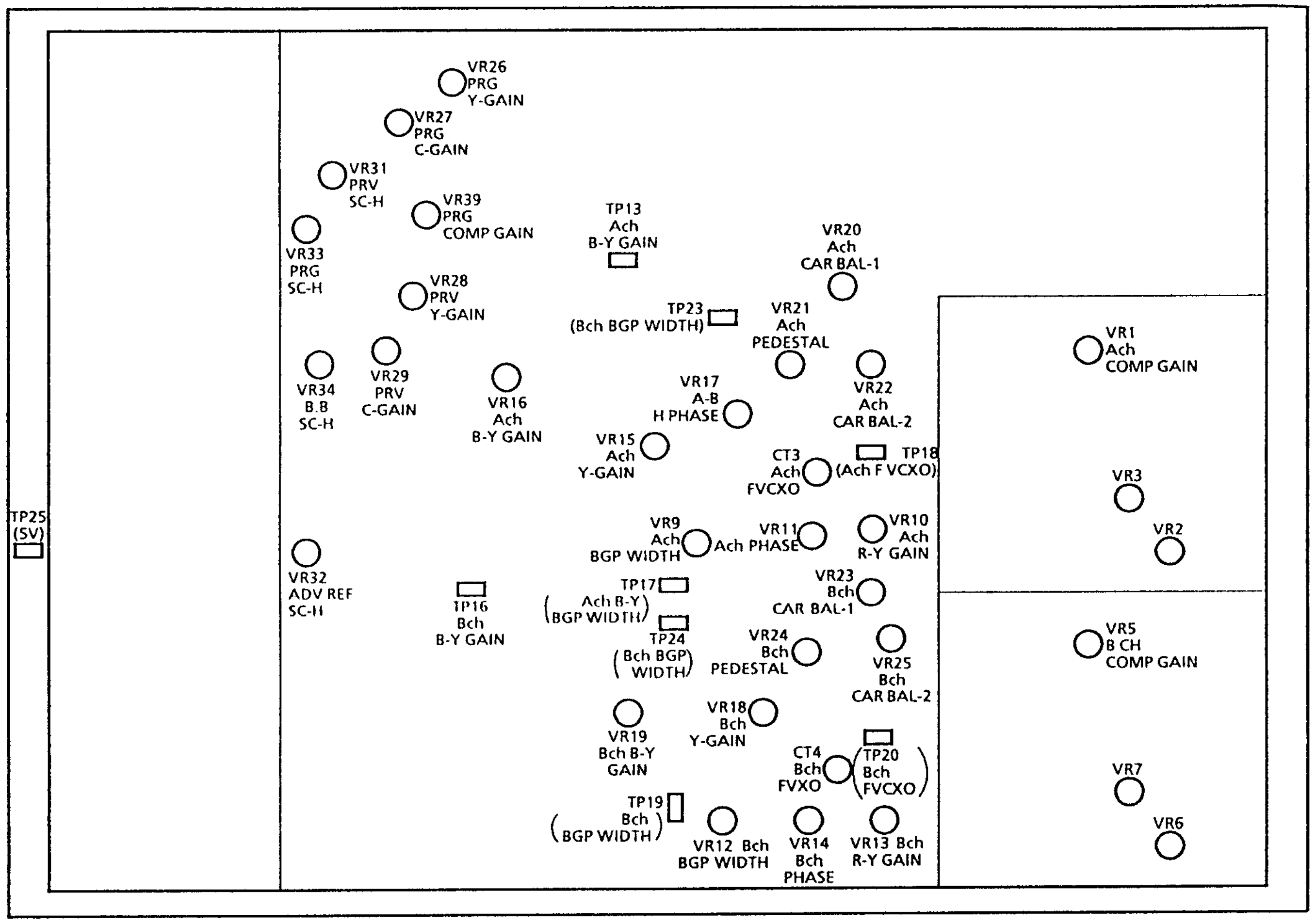
2-32. Audio Lch Adjustment

Test point :	**Audio Level Indicator for L ch**	
Adjust :	**VR6**	**Audio board**

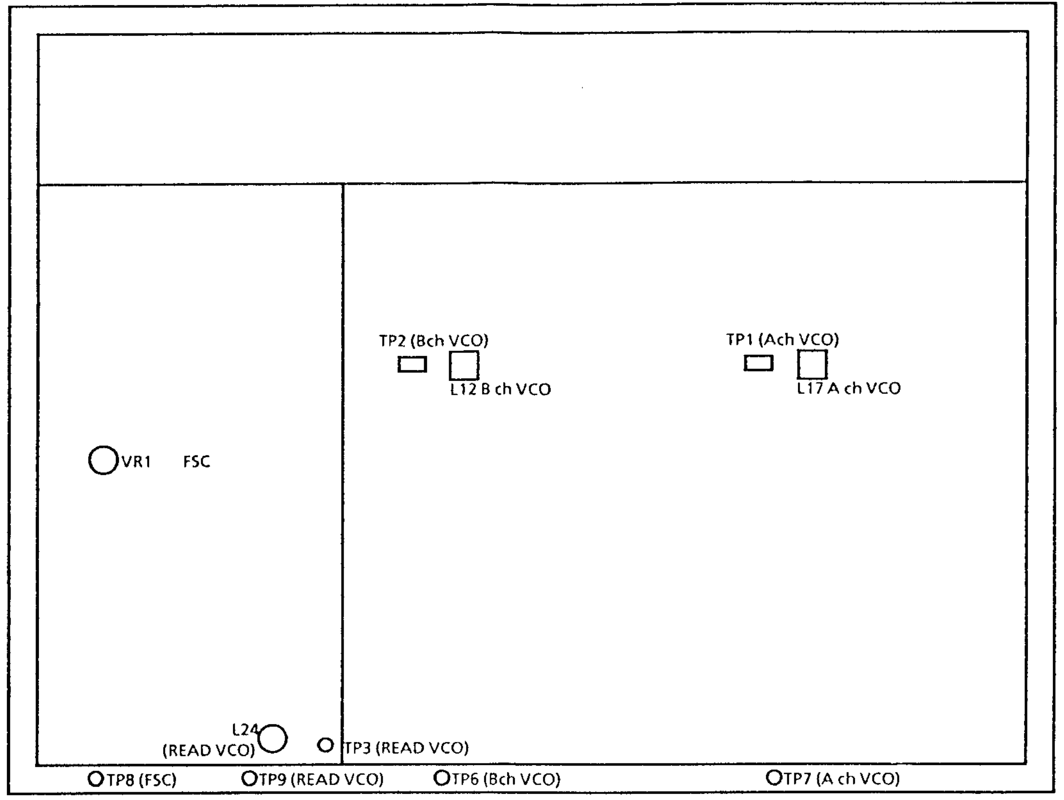
- Supply the audio signal (-18 dBs, 1 KHz) to the Lch of the SOURCE 3 audio input connector.
- Slide the A-fader and the MASTER fader on the AUDIO MIX to the maximum position.
- Slide the FADE control to the IN position.
- Connect the audio level meter to the R or L channel of the Audio Program Output pin-connector.
- Adjust the output level of the audio signal generator so that the audio level meter reads -6 dBs.
- Adjust VR6 so that the L channel of the AUDIO LEVEL indicator of WJ-MX50 indicates 0 dB. (just light off the 2 dB indicator)

LOCATION OF TEST POINTS AND ADJUSTING CONTROLS

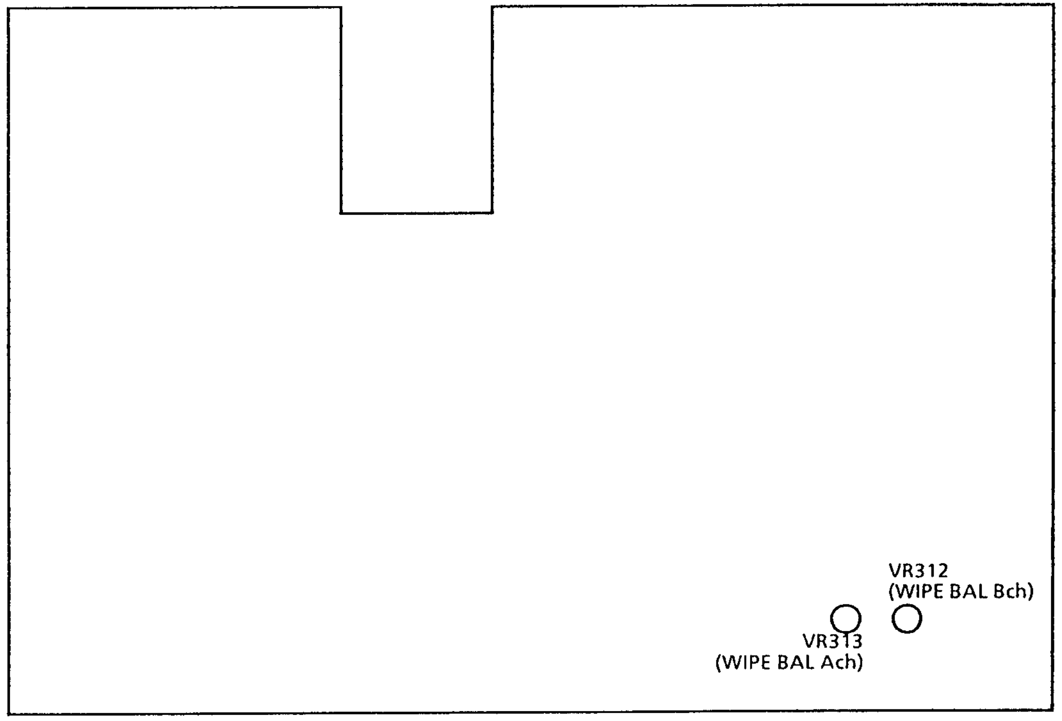
ANALOG BOARD


VR26 PRG Y-GAIN
VR27 PRG C-GAIN
VR31 PRV SC-H
VR39 PRG COMP GAIN
VR33 PRG SC-H
VR28 PRV Y-GAIN
TP13 Ach B-Y GAIN
VR20 Ach CAR BAL-1
TP23 (Bch BGP WIDTH)
VR21 Ach PEDESTAL
VR34 B.B SC-H
VR29 PRV C-GAIN
VR16 Ach B-Y GAIN
VR17 A-B H PHASE
VR22 Ach CAR BAL-2
VR1 Ach COMP GAIN
VR15 Ach Y-GAIN
CT3 Ach FVCXO
TP18 (Ach F VCXO)
VR3
TP25 (5V)
VR9 Ach BGP WIDTH
VR11 Ach PHASE
VR10 Ach R-Y GAIN
VR2
VR32 ADV REF SC-H
TP16 Bch B-Y GAIN
TP17 (Ach B-Y BGP WIDTH)
VR23 Bch CAR BAL-1
TP24 (Bch BGP WIDTH)
VR24 Bch PEDESTAL
VR25 Bch CAR BAL-2
VR5 B CH COMP GAIN
VR19 Bch B-Y GAIN
VR18 Bch Y-GAIN
CT4 Bch FVXO
TP20 (Bch FVCXO)
VR7
TP19 (Bch BGP WIDTH)
VR12 Bch BGP WIDTH
VR14 Bch PHASE
VR13 Bch R-Y GAIN
VR6

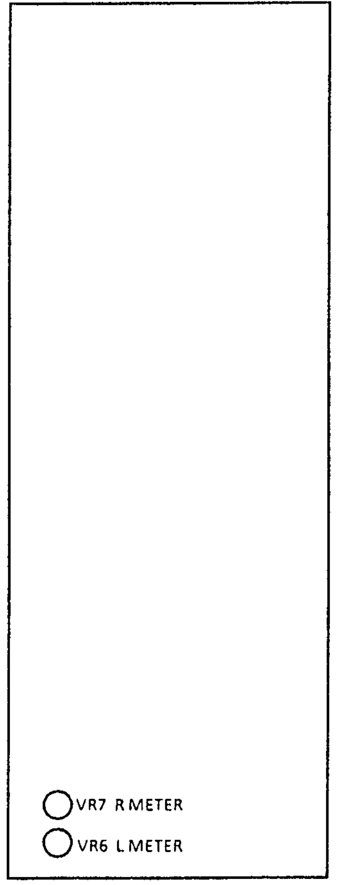
DIGITAL BOARD


TP2 (Bch VCO)
L12 B ch VCO
TP1 (Ach VCO)
L17 A ch VCO
VR1 FSC
L24 (READ VCO)
TP3 (READ VCO)
TP8 (FSC)
TP9 (READ VCO)
TP6 (Bch VCO)
TP7 (A ch VCO)

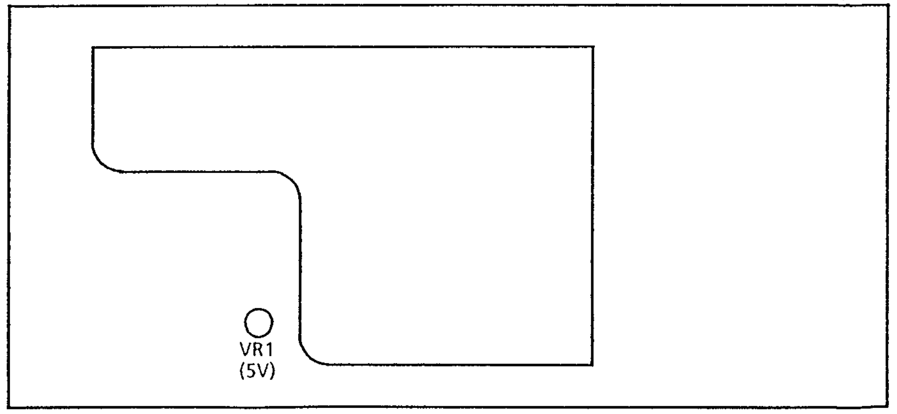
SWITCH BOARD


VR312 (WIPE BAL Bch)
VR313 (WIPE BAL Ach)

AUDIO BOARD


VR7 R METER
VR6 L METER

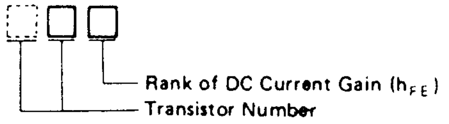
POWER BOARD



CHIP COMPONENTS

1. Chip Transistor

The transistor number is indicated on the top surface of the chip transistor using two alphabet letters or one numerical and two alphabet letters.


Rank of DC Current Gain (h_{FE})
Transistor Number

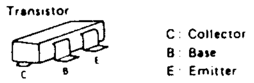
Transistor Number

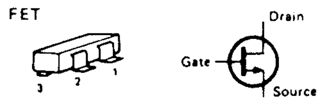
Letter	Transistor No.	Letter	Transistor No.
A	2SB709	X	2SD602A
B	2SB709A	Y	2SD601
C	2SB710	Z	2SD601A
D	2SB710A	1Z	2SD1030
E	2SA1022	1N	2SK199
F	2SA1034	1O	2SK198
H	2SA1035	1A	2SB799
I	2SB792	1B	2SB814
K	2SC2778	1C	2SB902
P	2SD814	1F	2SK321
Q	2SD813	1L	2SK247
R	2SC2480	1K	2SK316
S	2SC2405	1M	2SJ84
T	2SC2406	1T	2SC3077
U	2SC2404	1X	2SC2845
V	2SC2295	2B	2SK374
W	2SD602	2C	2SK116

Example

WQ ⟶ 2SD602 – Q
YQ ⟶ 2SD601 – Q
1BS ⟶ 2SB814 – S

Appearance and Symbols

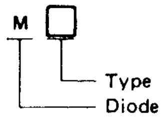

Transistor
C
B
E
C: Collector
B: Base
E: Emitter


FET
3
2
1
Drain
Gate
Source

	1	2	3
Except 2SK199	Drain	Source	Gate
2SK199	Gate	Drain	Source

2. Chip Diode

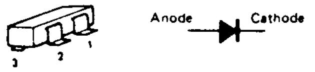
The diode number is indicated on the top surface of the chip diode using Two alphabet letters.


M
Type
Diode

Diode Number

Letter	Diode No.	Letter	Diode No.
MA	MA151A	MI	MA152K
MB	MA152A	MK	MA28W-B
MC	MA153	ML	MA28T-A
MD	MA28-A	MN	MA151WA
ME	MA28-B	MO	MA152WA
MF	MA28W-A	MT	MA151WK
MH	MA151K	MU	MA152WK

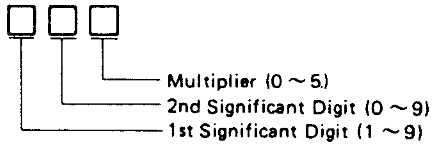
Appearance and Symbols


3
2
1
Anode
Cathode

	1	2	3
MA28/28W/28T	–	Anode	Cathode
MA151K/152K	–	Anode	Cathode
MA151A/152A	–	Cathode	Anode
MA151WK/MA152WK	Anode	Anode	Cathode
MA151WA/MA152WA	Cathode	Cathode	Anode
MA153	Cathode	Anode	Common

3. Chip Resistor

The resistor value is indicated on the bottom surface of the chip resistor using three digit numbers.


Multiplier (0 ~ 5)
2nd Significant Digit (0 ~ 9)
1st Significant Digit (1 ~ 9)

EXAMPLE:

330 ⟶ $33 \times 10^0 = 33$ ohms
561 ⟶ $56 \times 10^1 = 560$ ohms
123 ⟶ $12 \times 10^3 = 12$ kohms

Note: Zero ohm resistor (jumper chip) is colored red or green.

4. Chip Capacitor

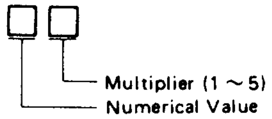
The capacitive value of replacement chip capacitors is indicated on the bottom surface. Original parts do not have value indication.

If the capacitive value is less than 100 pF, the value will be indicated by one or two digit number expressing the capacity directly in pF.

EXAMPLE:

0.5 ⟶	0.5 pF	2.5 ⟶	2.5 pF
75 ⟶	0.75 pF	33 ⟶	33 pF
1 ⟶	1 pF	82 ⟶	82 pF

If the capacitive value is 100 pF or greater, the value will be indicated by an alpha-numeric code. The letter precedes the number and expresses a numerical value to be multiplied by the number which follows.


Multiplier (1 ~ 5)
Numerical Value

Numerical Value

Letter	Value	Letter	Value
A	10	N	33
B	11	P	36
C	12	Q	39
D	13	R	43
E	15	S	47
F	16	T	51
G	18	U	56
H	20	V	62
J	22	W	68
K	24	X	75
L	27	Y	82
M	30	Z	91

* Letters I and O are not used

EXAMPLE:

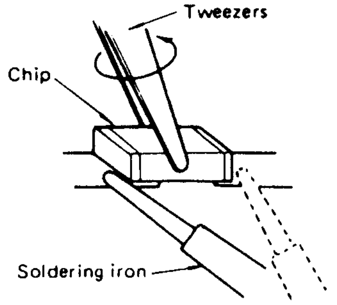
A1 ⟶ $10 \times 10^1 = 100$ pF
N2 ⟶ $33 \times 10^2 = 3300$ pF
S3 ⟶ $47 \times 10^3 = 47000$ pF

5. Precautions in replacing the chip component

1. Make sure that the unit is turned OFF when replacing the chip.
2. Use tweezers to prevent any damage to the chip surface.
3. Do not re-use the chips after removal.
4. Do not rub the electrode of chips.
5. Do not subject the chips to excessive stress.
6. It is recommended that a pencil-type soldering iron to be used.
7. The solder whose diameter is less than 0.5 mm is recommended.
8. Do not heat the chip beyond 3 seconds.
9. Maintain temperature control under 260°C (500°F) when soldering.

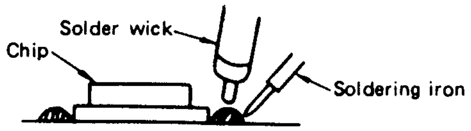
5-1 Removal (Transistor, Diode, Resistor and Capacitor)

1. Add the solder to both ends of the chip (three leads for chip transistor).
2. While attaching the soldering iron to both ends of the chip (three leads for chip transistor) as shown below, remove the chip by turning it with tweezers.
   Note Be careful not to damage other chips.

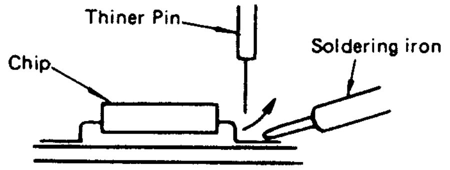

Tweezers
Chip
Soldering iron

5-2 Removal (IC)

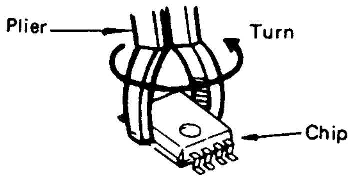
1. Add the solder wick and solder iron to each lead of the IC and remove solder.


Solder wick
Chip
Soldering iron

2. Add the solder iron to each lead of the IC and left each lead of the IC using thiner pin.

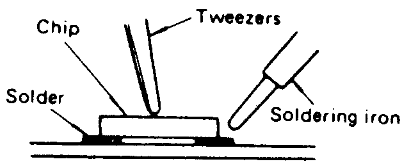

Thiner Pin
Soldering iron
Chip

3. Remove IC turning it with plier.

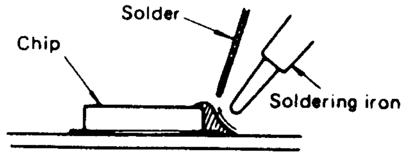

Plier
Turn
Chip

5-3 Mounting

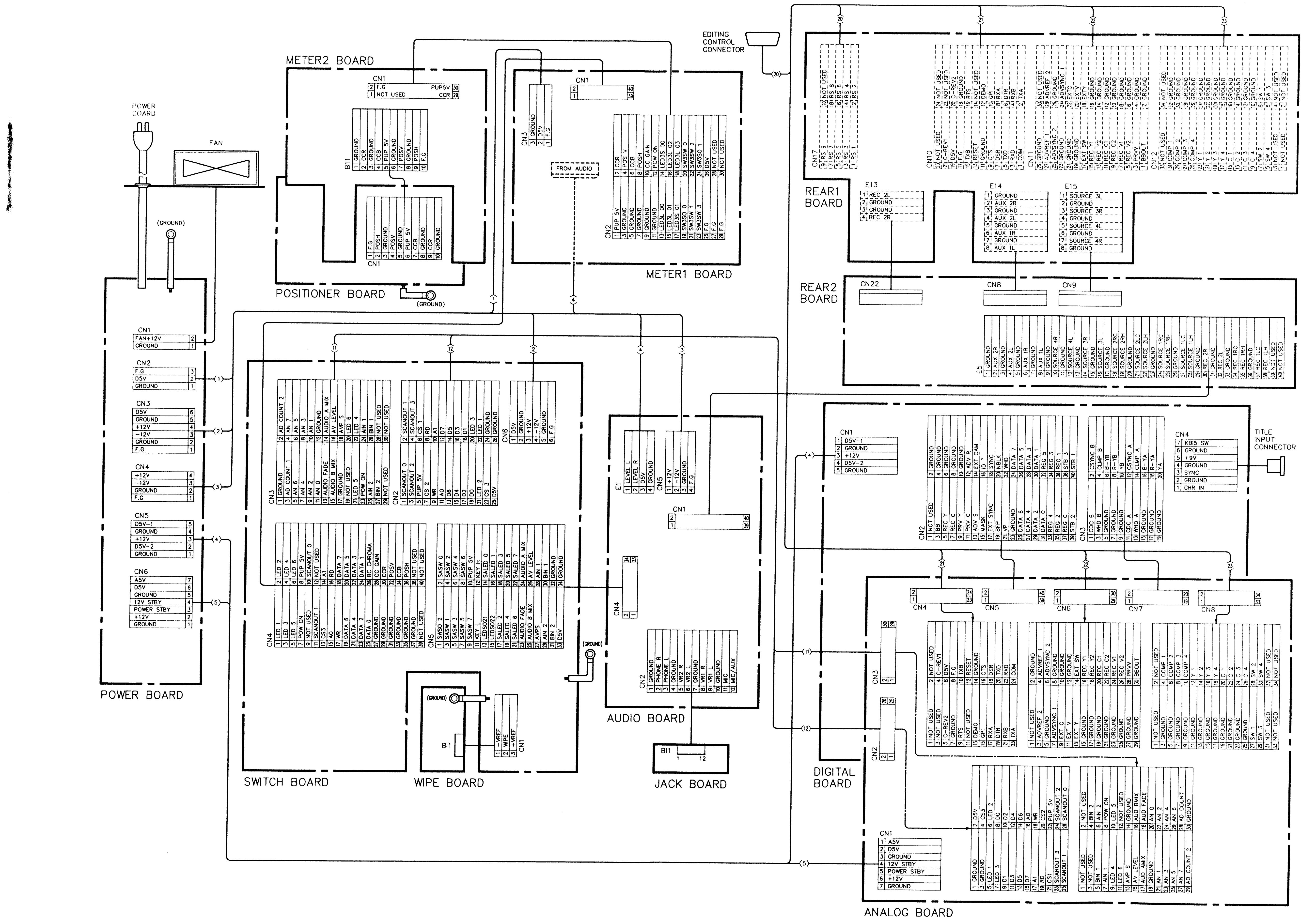
1. Place the solder thinly on the chip mounting foil.
2. Solder the chip temporarily while holding the chip with the tweezers.


Chip
Tweezers
Solder
Soldering iron

3. Solder both ends of chip (three leads for chip transistor).

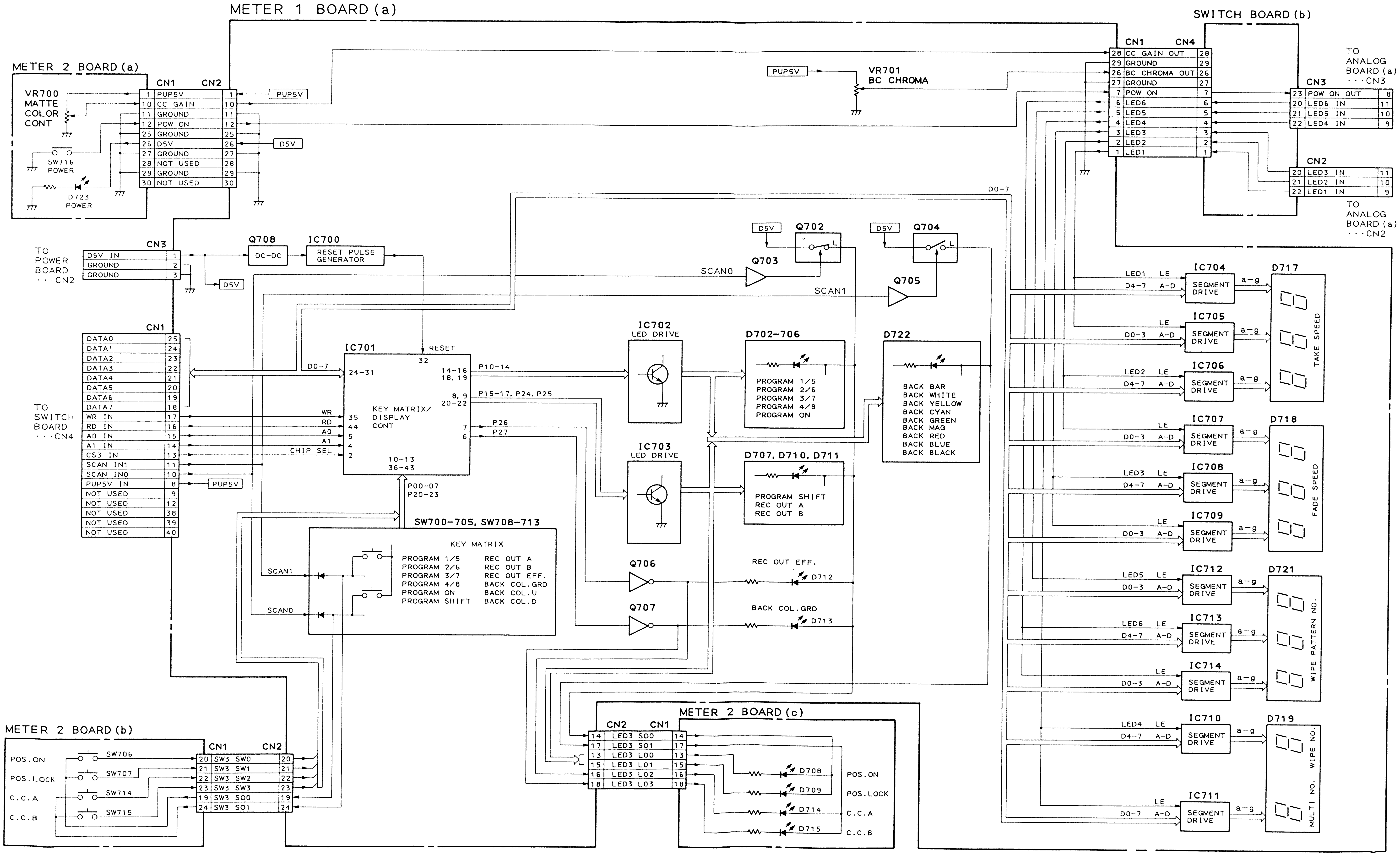

Solder
Chip
Soldering iron

WIRING DIAGRAM

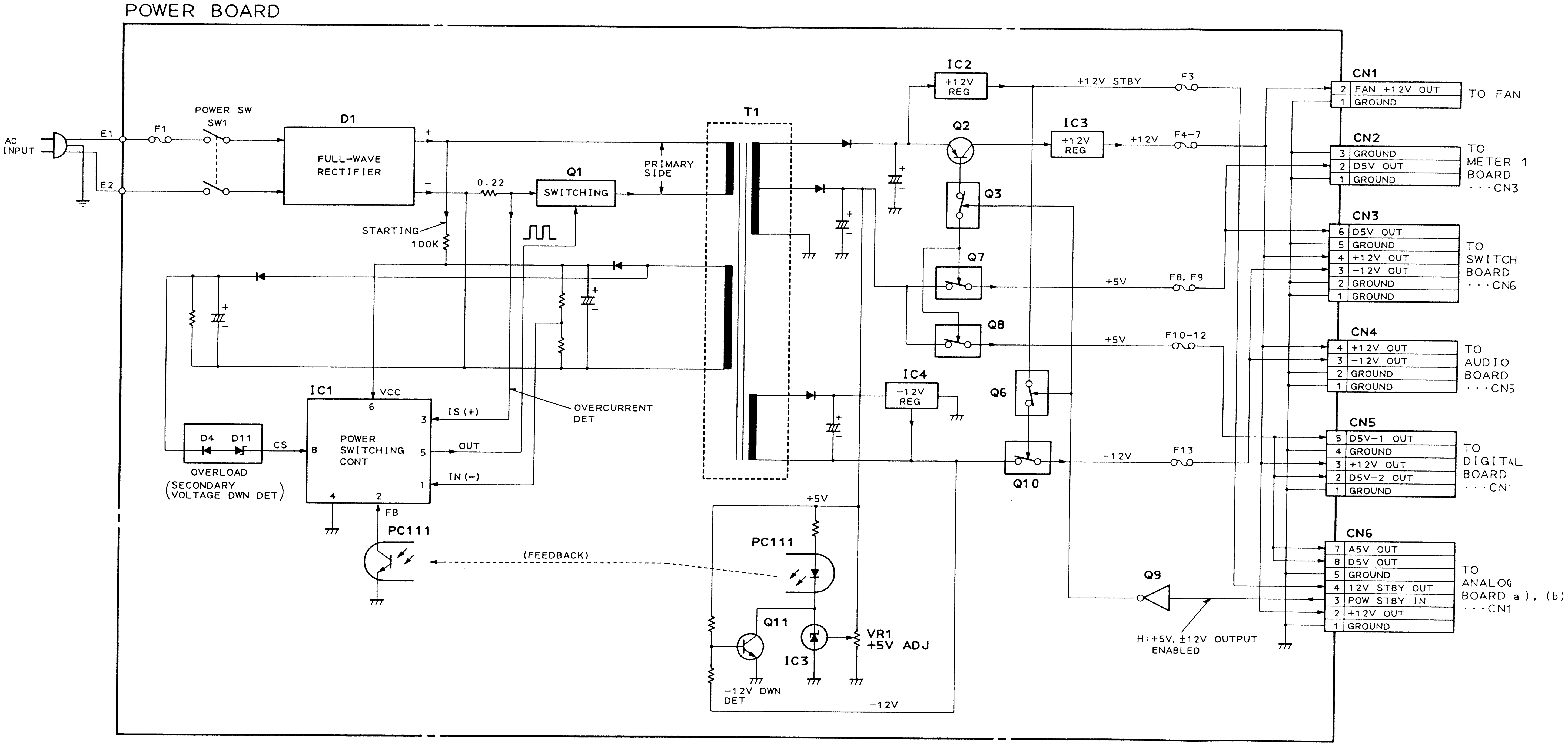

POWER COARD
FAN
(GROUND)
POWER BOARD
METER2 BOARD
POSITIONER BOARD
METER1 BOARD
FROM AUDIO
EDITING CONTROL CONNECTOR
REAR1 BOARD
REAR2 BOARD
SWITCH BOARD
WIPE BOARD
AUDIO BOARD
JACK BOARD
DIGITAL BOARD
ANALOG BOARD
TITLE INPUT CONNECTOR
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CN9
CN10
CN11
CN12
CN17
CN22
E1
E5
E13
E14
E15
BI1
FAN+12V
GROUND
F.G
D5V
+12V
−12V
D5V−1
D5V−2
A5V
12V STBY
POWER STBY
KBI5 SW
+9V
SYNC
CHR IN

WJ-MX50 WJ-MX50

BLOCK DIAGRAM OF METER BOARD

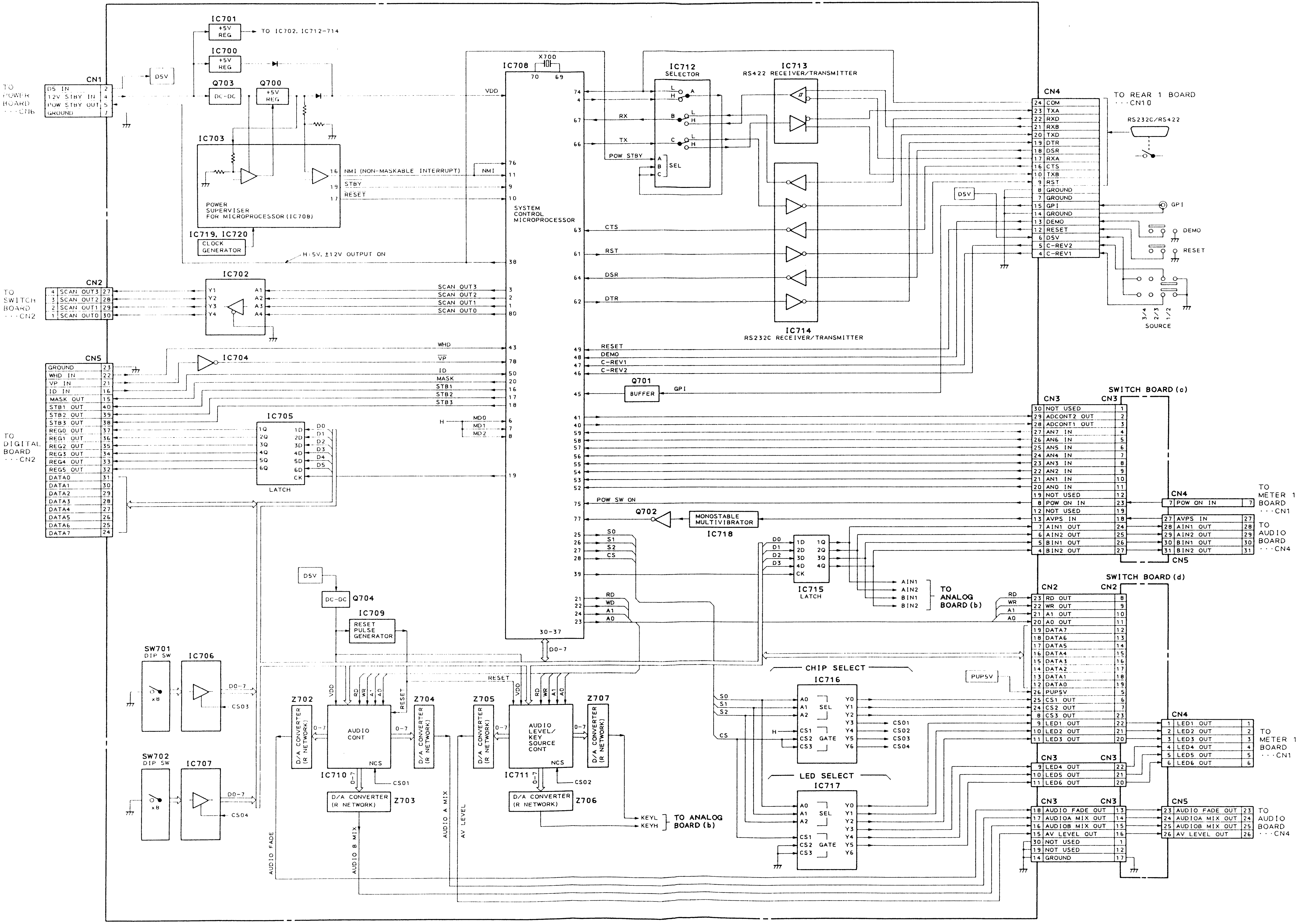

METER 1 BOARD (a)
SWITCH BOARD (b)
METER 2 BOARD (a)
VR700 MATTE COLOR CONT
SW716 POWER
D723 POWER
CN1 CN2
1 PUPSV 1
10 CC GAIN 10
11 GROUND 11
12 POW ON 12
25 GROUND 25
26 D5V 26
27 GROUND 27
28 NOT USED 28
29 GROUND 29
30 NOT USED 30
PUP5V
D5V
VR701 BC CHROMA
CN1 CN4
28 CC GAIN OUT 28
29 GROUND 29
26 BC CHROMA OUT 26
27 GROUND 27
7 POW ON 7
6 LED6 6
5 LED5 5
4 LED4 4
3 LED3 3
2 LED2 2
1 LED1 1
TO ANALOG BOARD (a) ···CN3
CN3
23 POW ON OUT 8
20 LED6 IN 11
21 LED5 IN 10
22 LED4 IN 9
CN2
20 LED3 IN 11
21 LED2 IN 10
22 LED1 IN 9
TO ANALOG BOARD (a) ···CN2
D0-7
TO POWER BOARD ···CN2
CN3
D5V IN 1
GROUND 2
GROUND 3
Q708 DC-DC
IC700 RESET PULSE GENERATOR
D5V Q702
D5V Q704
Q703
Q705
SCAN0
SCAN1
CN1
DATA0 25
DATA1 24
DATA2 23
DATA3 22
DATA4 21
DATA5 20
DATA6 19
DATA7 18
WR IN 17
RD IN 16
A0 IN 15
A1 IN 14
CS3 IN 13
SCAN IN1 11
SCAN IN0 10
PUP5V IN 8
NOT USED 9
NOT USED 12
NOT USED 38
NOT USED 39
NOT USED 40
TO SWITCH BOARD ···CN4
IC701
RESET
32
D0-7
24-31
WR 35
RD 44
A0 5
A1 4
CHIP SEL 2
KEY MATRIX/ DISPLAY CONT
14-16 18, 19
P10-14
8, 9 20-22
P15-17, P24, P25
7 P26
6 P27
10-13 36-43
P00-07 P20-23
IC702 LED DRIVE
IC703 LED DRIVE
D702-706
PROGRAM 1/5
PROGRAM 2/6
PROGRAM 3/7
PROGRAM 4/8
PROGRAM ON
D722
BACK BAR
BACK WHITE
BACK YELLOW
BACK CYAN
BACK GREEN
BACK MAG
BACK RED
BACK BLUE
BACK BLACK
D707, D710, D711
PROGRAM SHIFT
REC OUT A
REC OUT B
SW700-705, SW708-713
KEY MATRIX
SCAN1
SCAN0
PROGRAM 1/5
PROGRAM 2/6
PROGRAM 3/7
PROGRAM 4/8
PROGRAM ON
PROGRAM SHIFT
REC OUT A
REC OUT B
REC OUT EFF.
BACK COL.GRD
BACK COL.U
BACK COL.D
Q706
Q707
REC OUT EFF.
D712
BACK COL.GRD
D713
LED1 LE D4-7 A-D
IC704 SEGMENT DRIVE
LE D0-3 A-D
IC705 SEGMENT DRIVE
LED2 LE D4-7 A-D
IC706 SEGMENT DRIVE
LE D0-3 A-D
IC707 SEGMENT DRIVE
LED3 LE D4-7 A-D
IC708 SEGMENT DRIVE
LE D0-3 A-D
IC709 SEGMENT DRIVE
LED5 LE D0-3 A-D
IC712 SEGMENT DRIVE
LED6 LE D4-7 A-D
IC713 SEGMENT DRIVE
LE D0-3 A-D
IC714 SEGMENT DRIVE
LED4 LE D4-7 A-D
IC710 SEGMENT DRIVE
LE D0-7 A-D
IC711 SEGMENT DRIVE
a-g
D717 TAKE SPEED
D718 FADE SPEED
D721 WIPE PATTERN NO.
D719 MULTI NO. WIPE NO.
METER 2 BOARD (b)
POS.ON SW706
POS.LOCK SW707
C.C.A SW714
C.C.B SW715
CN1 CN2
20 SW3 SW0 20
21 SW3 SW1 21
22 SW3 SW2 22
23 SW3 SW3 23
19 SW3 SO0 19
24 SW3 SO1 24
METER 2 BOARD (c)
CN2 CN1
14 LED3 SO0 14
17 LED3 SO1 17
13 LED3 LO0 13
15 LED3 LO1 15
16 LED3 LO2 16
18 LED3 LO3 18
D708 POS.ON
D709 POS.LOCK
D714 C.C.A
D715 C.C.B

BLOCK DIAGRAM OF POWER BOARD

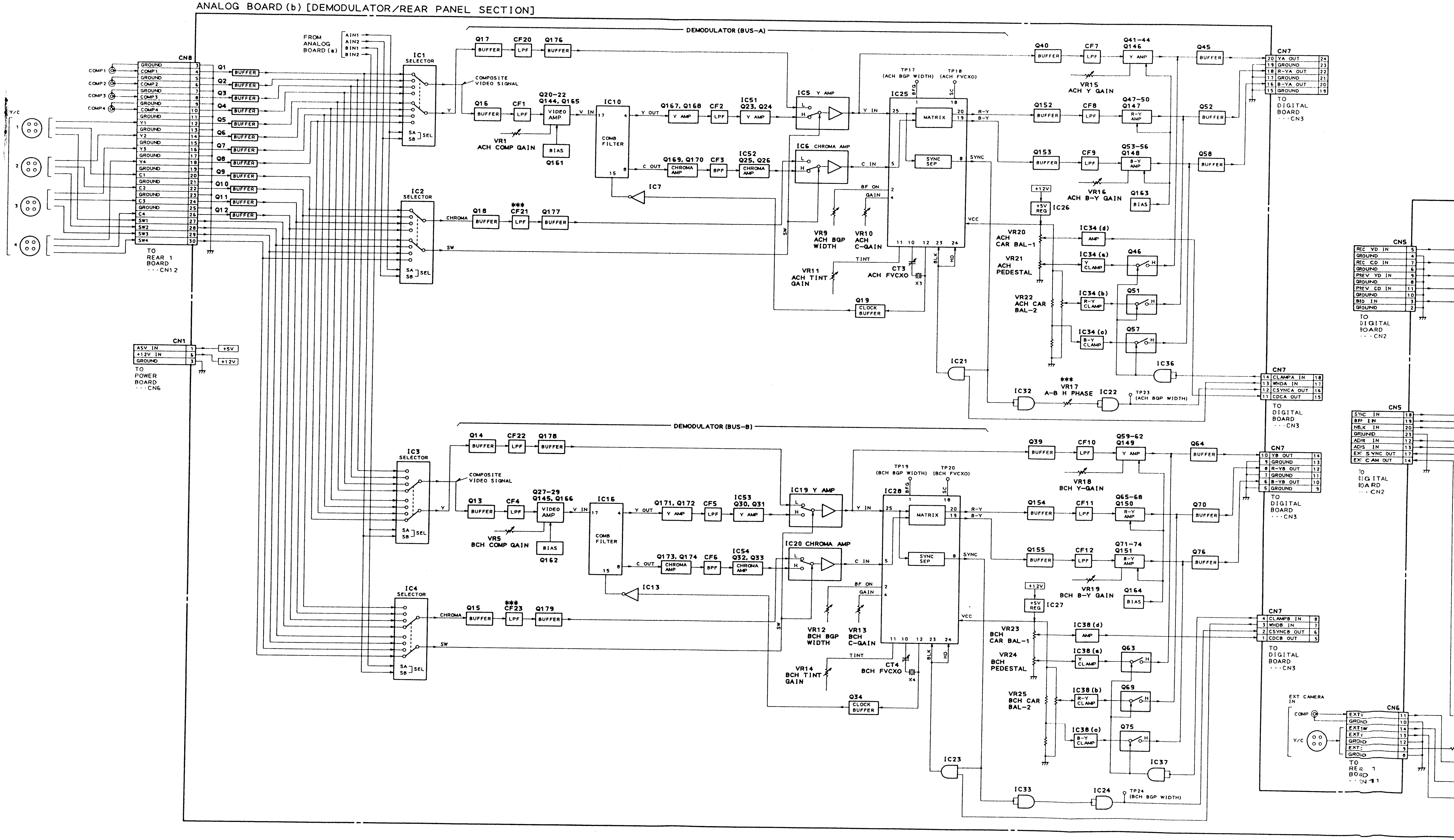

POWER BOARD
AC INPUT
E1
E2
F1
POWER SW
SW1
D1
FULL-WAVE RECTIFIER
+
−
0.22
Q1
SWITCHING
PRIMARY SIDE
STARTING
100K
T1
IC1
VCC
6
3
IS (+)
POWER SWITCHING CONT
8
5
OUT
1
IN (−)
4
2
FB
OVERCURRENT DET
D4
D11
CS
OVERLOAD
(SECONDARY VOLTAGE DWN DET)
PC111
(FEEDBACK)
PC111
+5V
Q11
IC3
VR1
+5V ADJ
−12V DWN DET
−12V
IC2
+12V REG
+12V STBY
F3
Q2
IC3
+12V REG
+12V
F4−7
Q3
Q7
+5V
F8, F9
Q8
+5V
F10−12
IC4
−12V REG
Q6
Q10
−12V
F13
Q9
H: +5V, ±12V OUTPUT ENABLED
CN1
2 FAN +12V OUT
1 GROUND
TO FAN
CN2
3 GROUND
2 D5V OUT
1 GROUND
TO METER 1 BOARD ···CN3
CN3
6 D5V OUT
5 GROUND
4 +12V OUT
3 −12V OUT
2 GROUND
1 GROUND
TO SWITCH BOARD ···CN6
CN4
4 +12V OUT
3 −12V OUT
2 GROUND
1 GROUND
TO AUDIO BOARD ···CN5
CN5
5 D5V−1 OUT
4 GROUND
3 +12V OUT
2 D5V−2 OUT
1 GROUND
TO DIGITAL BOARD ···CN1
CN6
7 A5V OUT
8 D5V OUT
5 GROUND
4 12V STBY OUT
3 POW STBY IN
2 +12V OUT
1 GROUND
TO ANALOG BOARD (a), (b) ···CN1

BLOCK DIAGRAM OF ANALOG BOARD

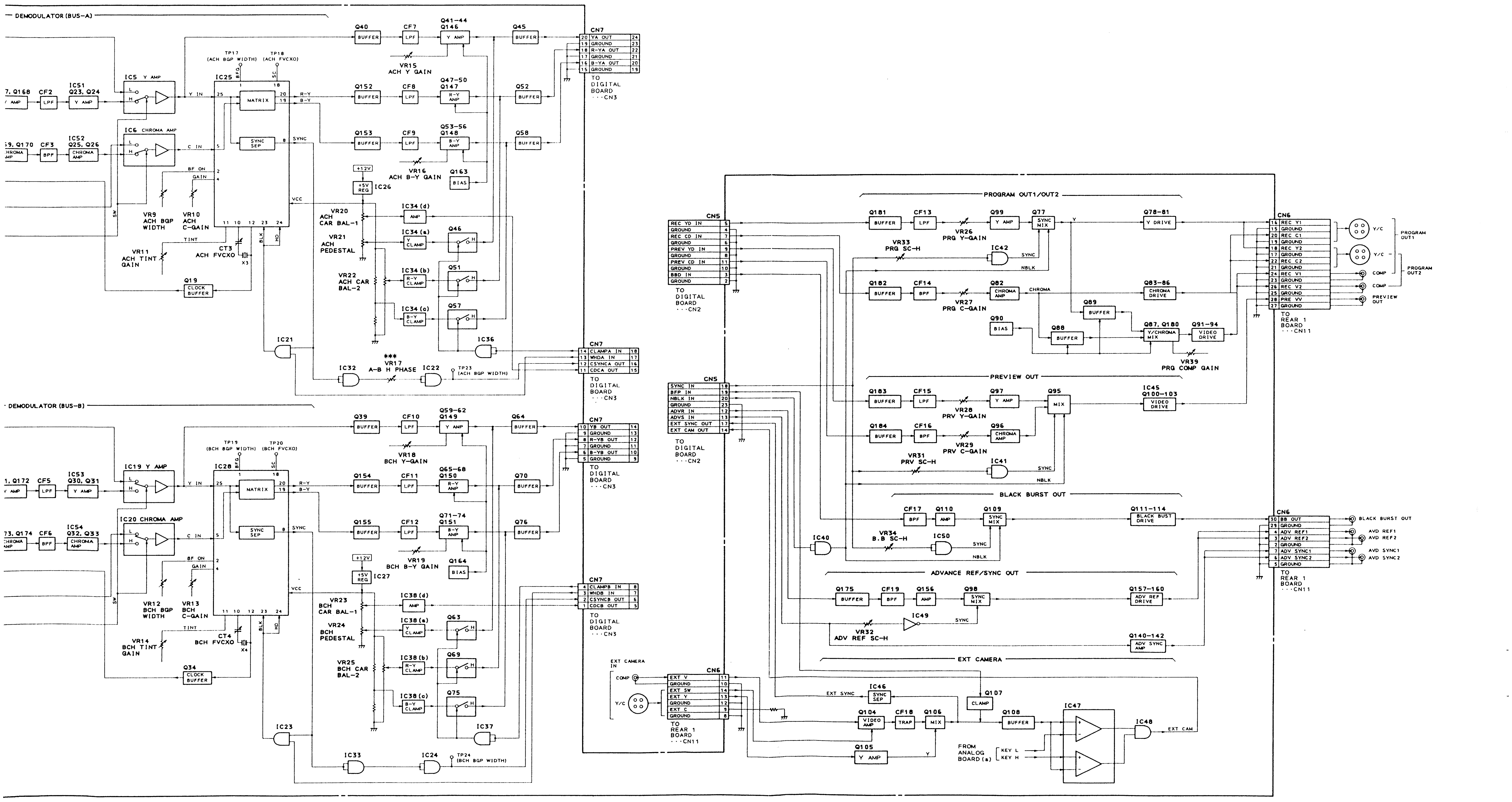
ANALOG BOARD (a) [MICROPROCESSOR SECTION]


IC701 +5V REG
TO IC702, IC712-714
IC700 +5V REG
Q703 DC-DC
Q700 +5V REG
D5V
TO POWER BOARD ···CN6
CN1
D5 IN 2
12V STBY IN 4
POW STBY OUT 5
GROUND 7
IC703
POWER SUPERVISER FOR MICROPROCESSOR (IC708)
NMI (NON-MASKABLE INTERRUPT)
NMI
STBY
RESET
IC719, IC720 CLOCK GENERATOR
H:5V, ±12V OUTPUT ON
IC708
X700
SYSTEM CONTROL MICROPROCESSOR
VDD
IC712 SELECTOR
IC713 RS422 RECEIVER/TRANSMITTER
IC714 RS232C RECEIVER/TRANSMITTER
RX
TX
POW STBY
SEL
CTS
RST
DSR
DTR
CN4
TO REAR 1 BOARD ···CN10
24 COM
23 TXA
22 RXD
21 RXB
20 TXD
19 DTR
18 DSR
17 RXA
16 CTS
10 TXB
9 RST
8 GROUND
7 GROUND
15 GPI
14 GROUND
13 DEMO
12 RESET
6 D5V
5 C-REV2
4 C-REV1
RS232C/RS422
GPI
DEMO
RESET
3/4 2/3 1/2 SOURCE
TO SWITCH BOARD ···CN2
CN2
4 SCAN OUT3 27
3 SCAN OUT2 28
2 SCAN OUT1 29
1 SCAN OUT0 30
IC702
SCAN OUT3
SCAN OUT2
SCAN OUT1
SCAN OUT0
CN5
GROUND 23
WHD IN 22
VP IN 21
ID IN 16
MASK OUT 15
STB1 OUT 40
STB2 OUT 39
STB3 OUT 38
REG0 OUT 37
REG1 OUT 36
REG2 OUT 35
REG3 OUT 34
REG4 OUT 33
REG5 OUT 32
DATA0 31
DATA1 30
DATA2 29
DATA3 28
DATA4 27
DATA5 26
DATA6 25
DATA7 24
TO DIGITAL BOARD ···CN2
IC704
WHD
VP
ID
MASK
STB1
STB2
STB3
MD0
MD1
MD2
IC705 LATCH
RESET
DEMO
C-REV1
C-REV2
Q701 BUFFER
GPI
SWITCH BOARD (c)
CN3
30 NOT USED 1
29 ADCONT2 OUT 2
28 ADCONT1 OUT 3
27 AN7 IN 4
26 AN6 IN 5
25 AN5 IN 6
24 AN4 IN 7
23 AN3 IN 8
22 AN2 IN 9
21 AN1 IN 10
20 AN0 IN 11
19 NOT USED 12
8 POW ON IN 23
12 NOT USED 19
13 AVPS IN 18
7 AIN1 OUT 24
6 AIN2 OUT 25
5 BIN1 OUT 26
4 BIN2 OUT 27
CN4
7 POW ON IN 7
TO METER 1 BOARD ···CN1
27 AVPS IN 27
28 AIN1 OUT 28
29 AIN2 OUT 29
30 BIN1 OUT 30
31 BIN2 OUT 31
TO AUDIO BOARD ···CN4
CN5
POW SW ON
Q702
MONOSTABLE MULTIVIBRATOR IC718
S0 S1 S2 CS
IC715 LATCH
AIN1 AIN2 BIN1 BIN2
TO ANALOG BOARD (b)
RD WD A1 A0
D0-7
D5V
DC-DC Q704
IC709 RESET PULSE GENERATOR
SWITCH BOARD (d)
CN2
23 RD OUT 8
22 WR OUT 9
21 A1 OUT 10
20 A0 OUT 11
19 DATA7 12
18 DATA6 13
17 DATA5 14
16 DATA4 15
15 DATA3 16
14 DATA2 17
13 DATA1 18
12 DATA0 19
26 PUPSV 5
25 CS1 OUT 6
24 CS2 OUT 7
8 CS3 OUT 23
9 LED1 OUT 22
10 LED2 OUT 21
11 LED3 OUT 20
PUPSV
CHIP SELECT IC716
SEL GATE
CS01 CS02 CS03 CS04
LED SELECT IC717
CN4
1 LED1 OUT 1
2 LED2 OUT 2
3 LED3 OUT 3
4 LED4 OUT 4
5 LED5 OUT 5
6 LED6 OUT 6
TO METER 1 BOARD ···CN1
CN3
9 LED4 OUT 22
10 LED5 OUT 21
11 LED6 OUT 20
CN3
18 AUDIO FADE OUT 13
17 AUDIOA MIX OUT 14
16 AUDIOB MIX OUT 15
15 AV LEVEL OUT 16
30 NOT USED 1
19 NOT USED 12
14 GROUND 17
CN5
23 AUDIO FADE OUT 23
24 AUDIOA MIX OUT 24
25 AUDIOB MIX OUT 25
26 AV LEVEL OUT 26
TO AUDIO BOARD ···CN4
SW701 DIP SW
IC706
D0-7
CS03
SW702 DIP SW
IC707
CS04
Z702 D/A CONVERTER (R NETWORK)
IC710 AUDIO CONT
Z704 D/A CONVERTER (R NETWORK)
Z703 D/A CONVERTER (R NETWORK)
CS01
Z705 D/A CONVERTER (R NETWORK)
IC711 AUDIO LEVEL/KEY SOURCE CONT
Z707 D/A CONVERTER (R NETWORK)
Z706 D/A CONVERTER (R NETWORK)
CS02
NCS
KEYL KEYH TO ANALOG BOARD (b)
AUDIO FADE
AUDIO B MIX
AUDIO A MIX
AV LEVEL

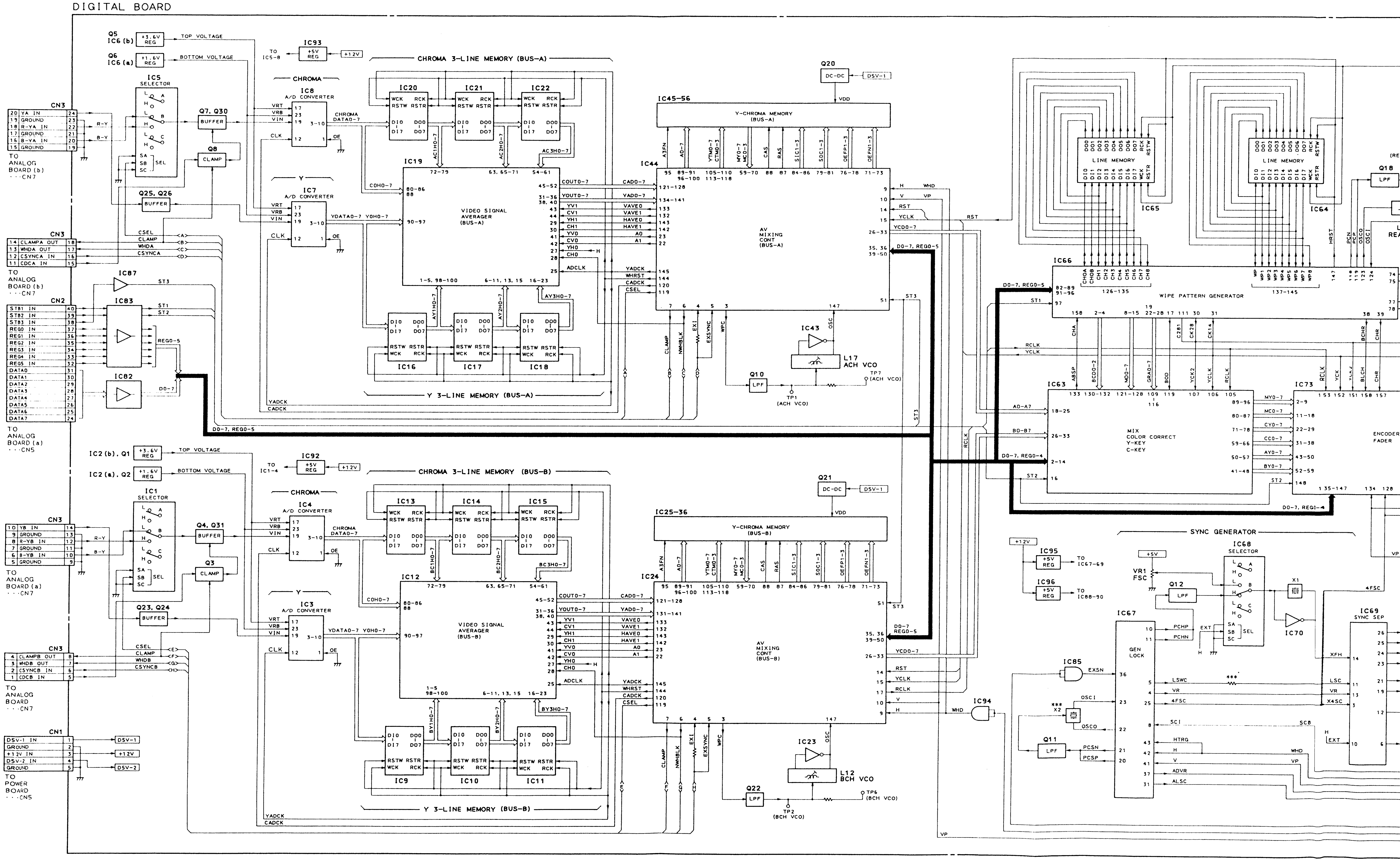
BLOCK DIAGRAM OF ANALOG BOARD


ANALOG BOARD (b) [DEMODULATOR/REAR PANEL SECTION]
DEMODULATOR (BUS-A)
DEMODULATOR (BUS-B)
CN8
COMP1
COMP2
COMP3
COMP4
Y/C
GROUND
Y1
Y2
Y3
Y4
C1
C2
C3
C4
SW1
SW2
SW3
SW4
TO REAR 1 BOARD ···CN12
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
Q11
Q12
BUFFER
FROM ANALOG BOARD (a)
AIN1
AIN2
BIN1
BIN2
IC1 SELECTOR
IC2 SELECTOR
IC3 SELECTOR
IC4 SELECTOR
SA
SB
SEL
COMPOSITE VIDEO SIGNAL
CHROMA
SW
Q17
CF20
Q176
Q16
CF1
Q20-22 Q144, Q165
VIDEO AMP
VR1 ACH COMP GAIN
BIAS
Q161
IC10
COMB FILTER
V IN
Y OUT
C OUT
Q167, Q168
CF2
IC51 Q23, Q24
Y AMP
LPF
Q169, Q170
CF3
BPF
IC52 Q25, Q26
CHROMA AMP
IC7
Q18
CF21
Q177
IC5 Y AMP
IC6 CHROMA AMP
IC25
MATRIX
SYNC SEP
TP17 (ACH BGP WIDTH)
TP18 (ACH FVCXO)
BFG
SC
Y IN
C IN
BF ON
GAIN
R-Y
B-Y
SYNC
VCC
BLK
HD
TINT
VR9 ACH BGP WIDTH
VR10 ACH C-GAIN
VR11 ACH TINT GAIN
CT3 ACH FVCXO
X3
Q19 CLOCK BUFFER
Q40
CF7
Q41-44 Q146
VR15 ACH Y GAIN
Q45
Q152
CF8
Q47-50 Q147
R-Y AMP
Q52
Q153
CF9
Q53-56 Q148
B-Y AMP
Q58
+12V
+5V REG
IC26
VR16 ACH B-Y GAIN
Q163
VR20 ACH CAR BAL-1
VR21 ACH PEDESTAL
VR22 ACH CAR BAL-2
IC34 (d) AMP
IC34 (a) Y CLAMP
IC34 (b) R-Y CLAMP
IC34 (c) B-Y CLAMP
Q46
Q51
Q57
IC21
IC32
IC36
VR17 A-B H PHASE
IC22
TP23 (ACH BGP WIDTH)
CN7
YA OUT
R-YA OUT
B-YA OUT
CLAMPA IN
WHDA IN
CSYNCA OUT
CDCA OUT
TO DIGITAL BOARD ···CN3
CN1
A5V IN
+12V IN
+5V
TO POWER BOARD ···CN6
Q14
CF22
Q178
Q13
CF4
Q27-29 Q145, Q166
VR5 BCH COMP GAIN
Q162
IC16
Q171, Q172
CF5
IC53 Q30, Q31
Q173, Q174
CF6
IC54 Q32, Q33
IC13
Q15
CF23
Q179
IC19 Y AMP
IC20 CHROMA AMP
IC28
TP19 (BCH BGP WIDTH)
TP20 (BCH FVCXO)
VR12 BCH BGP WIDTH
VR13 BCH C-GAIN
VR14 BCH TINT GAIN
CT4 BCH FVCXO
X4
Q34 CLOCK BUFFER
Q39
CF10
Q59-62 Q149
VR18 BCH Y-GAIN
Q64
Q154
CF11
Q65-68 Q150
Q70
Q155
CF12
Q71-74 Q151
Q76
IC27
VR19 BCH B-Y GAIN
Q164
VR23 BCH CAR BAL-1
VR24 BCH PEDESTAL
VR25 BCH CAR BAL-2
IC38 (d) AMP
IC38 (a) Y CLAMP
IC38 (b) R-Y CLAMP
IC38 (c) B-Y CLAMP
Q63
Q69
Q75
IC23
IC33
IC37
IC24
TP24 (BCH BGP WIDTH)
YB OUT
R-YB OUT
B-YB OUT
CLAMPB IN
WHDB IN
CSYNCB OUT
CDCB OUT
CN5
REC YD IN
REC CD IN
PREV YD IN
PREV CD IN
BID IN
TO DIGITAL BOARD ···CN2
SYNC IN
BFP IN
HBLK IN
ADIR IN
ADIS IN
EXT SYNC OUT
EXT CAM OUT
EXT CAMERA IN
COMP
CN6
EXTV
EXTSW
EXTY
EXTC
TO REAR 1 BORD ···CN11

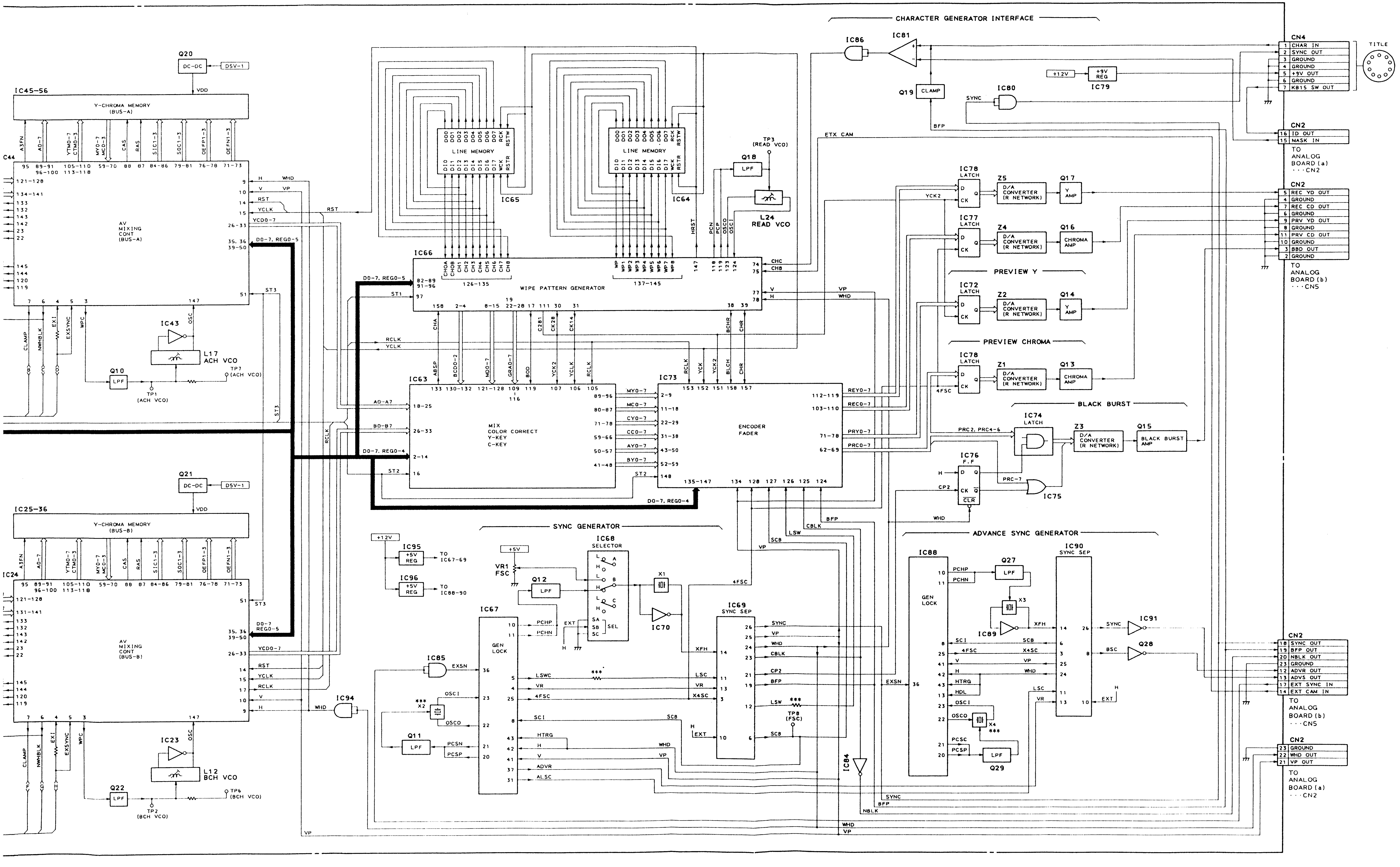
BLOCK DIAGRAM OF ANALOG BOARD


DEMODULATOR (BUS-A)
Q40 BUFFER
CF7 LPF
Q41-44 Q146 Y AMP
Q45 BUFFER
VR15 ACH Y GAIN
TP17 (ACH BGP WIDTH)
TP18 (ACH FVCXO)
IC25 MATRIX
SYNC SEP
IC5 Y AMP
IC51 Q23, Q24 Y AMP
CF2 LPF
IC6 CHROMA AMP
IC52 Q25, Q26 CHROMA AMP
CF3 BPF
Q152 BUFFER
CF8 LPF
Q47-50 Q147 R-Y AMP
Q52 BUFFER
Q153 BUFFER
CF9 LPF
Q53-56 Q148 B-Y AMP
Q58 BUFFER
VR16 ACH B-Y GAIN
Q163 BIAS
+12V
+5V REG IC26
VR9 ACH BGP WIDTH
VR10 ACH C-GAIN
VR11 ACH TINT
CT3 ACH FVCXO
X3
Q19 CLOCK BUFFER
VR20 ACH CAR BAL-1
VR21 ACH PEDESTAL
VR22 ACH CAR BAL-2
IC34 (d) AMP
IC34 (a) Y CLAMP
IC34 (b) R-Y CLAMP
IC34 (c) B-Y CLAMP
Q46
Q51
Q57
IC36
IC21
IC32
VR17 A-B H PHASE
IC22
TP23 (ACH BGP WIDTH)
CN7
20 YA OUT 24
19 GROUND 23
18 R-YA OUT 22
17 GROUND 21
16 B-YA OUT 20
15 GROUND 19
TO DIGITAL BOARD ···CN3
CN7
14 CLAMPA IN 18
13 WHDA IN 17
12 CSYNCA OUT 16
11 CDCA OUT 15
TO DIGITAL BOARD ···CN3
DEMODULATOR (BUS-B)
Q39 BUFFER
CF10 LPF
Q59-62 Q149 Y AMP
Q64 BUFFER
VR18 BCH Y-GAIN
TP19 (BCH BGP WIDTH)
TP20 (BCH FVCXO)
IC28 MATRIX
SYNC SEP
IC19 Y AMP
IC53 Q30, Q31 Y AMP
CF5 LPF
IC20 CHROMA AMP
IC54 Q32, Q33 CHROMA AMP
CF6 BPF
Q154 BUFFER
CF11 LPF
Q65-68 Q150 R-Y AMP
Q70 BUFFER
Q155 BUFFER
CF12 LPF
Q71-74 Q151 B-Y AMP
Q76 BUFFER
VR19 BCH B-Y GAIN
Q164 BIAS
+12V
+5V REG IC27
VR12 BCH BGP WIDTH
VR13 BCH C-GAIN
VR14 BCH TINT
CT4 BCH FVCXO
X4
Q34 CLOCK BUFFER
VR23 BCH CAR BAL-1
VR24 BCH PEDESTAL
VR25 BCH CAR BAL-2
IC38 (d) AMP
IC38 (a) Y CLAMP
IC38 (b) R-Y CLAMP
IC38 (c) B-Y CLAMP
Q63
Q69
Q75
IC37
IC23
IC33
IC24
TP24 (BCH BGP WIDTH)
CN7
10 YB OUT 14
9 GROUND 13
8 R-YB OUT 12
7 GROUND 11
6 B-YB OUT 10
5 GROUND 9
TO DIGITAL BOARD ···CN3
CN7
4 CLAMPB IN 8
3 WHDB IN 7
2 CSYNCB OUT 6
1 CDCB OUT 5
TO DIGITAL BOARD ···CN3
CN5
REC YD IN 5
GROUND 4
REC CD IN 7
GROUND 6
PREV YD IN 9
GROUND 8
PREV CD IN 11
GROUND 10
BBD IN 3
GROUND 2
TO DIGITAL BOARD ···CN2
CN5
SYNC IN 18
BFP IN 19
NBLK IN 20
GROUND 23
ADVR IN 12
ADVS IN 13
EXT SYNC OUT 17
EXT CAM OUT 14
TO DIGITAL BOARD ···CN2
PROGRAM OUT1/OUT2
Q181 BUFFER
CF13 LPF
VR26 PRG Y-GAIN
Q99 Y AMP
Q77 SYNC MIX
Q78-81 Y DRIVE
VR33 PRG SC-H
IC42
Q182 BUFFER
CF14 BPF
VR27 PRG C-GAIN
Q82 CHROMA AMP
Q83-86 CHROMA DRIVE
Q89 BUFFER
Q90 BIAS
Q88 BUFFER
Q87, Q180 Y/CHROMA MIX
Q91-94 VIDEO DRIVE
VR39 PRG COMP GAIN
PREVIEW OUT
Q183 BUFFER
CF15 LPF
VR28 PRV Y-GAIN
Q97 Y AMP
Q95 MIX
IC45 Q100-103 VIDEO DRIVE
Q184 BUFFER
CF16 BPF
VR29 PRV C-GAIN
Q96 CHROMA AMP
VR31 PRV SC-H
IC41
BLACK BURST OUT
CF17 BPF
Q110 AMP
Q109 SYNC MIX
Q111-114 BLACK BUST DRIVE
IC40
VR34 B.B SC-H
IC50
ADVANCE REF/SYNC OUT
Q175 BUFFER
CF19 BPF
Q156 AMP
Q98 SYNC MIX
Q157-160 ADV REF DRIVE
IC49
VR32 ADV REF SC-H
Q140-142 ADV SYNC AMP
EXT CAMERA
EXT CAMERA IN
COMP
Y/C
CN6
EXT V 11
GROUND 10
EXT SW 14
EXT Y 13
GROUND 12
EXT C 9
GROUND 8
TO REAR 1 BOARD ···CN11
IC46 SYNC SEP
EXT SYNC
Q107 CLAMP
Q104 VIDEO AMP
CF18 TRAP
Q106 MIX
Q108 BUFFER
IC47
IC48
EXT CAM
Q105 Y AMP
FROM ANALOG BOARD (a)
KEY L
KEY H
CN6
16 REC Y1
15 GROUND
20 REC C1
19 GROUND
18 REC Y2
17 GROUND
22 REC C2
21 GROUND
24 REC V1
23 GROUND
26 REC V2
25 GROUND
28 PRE VV
27 GROUND
TO REAR 1 BOARD ···CN11
Y/C
PROGRAM OUT1
Y/C
COMP
PROGRAM OUT2
COMP
PREVIEW OUT
CN6
30 BB OUT
29 GROUND
4 ADV REF1
3 ADV REF2
2 GROUND
7 ADV SYNC1
6 ADV SYNC2
5 GROUND
TO REAR 1 BOARD ···CN11
BLACK BURST OUT
AVD REF1
AVD REF2
AVD SYNC1
AVD SYNC2

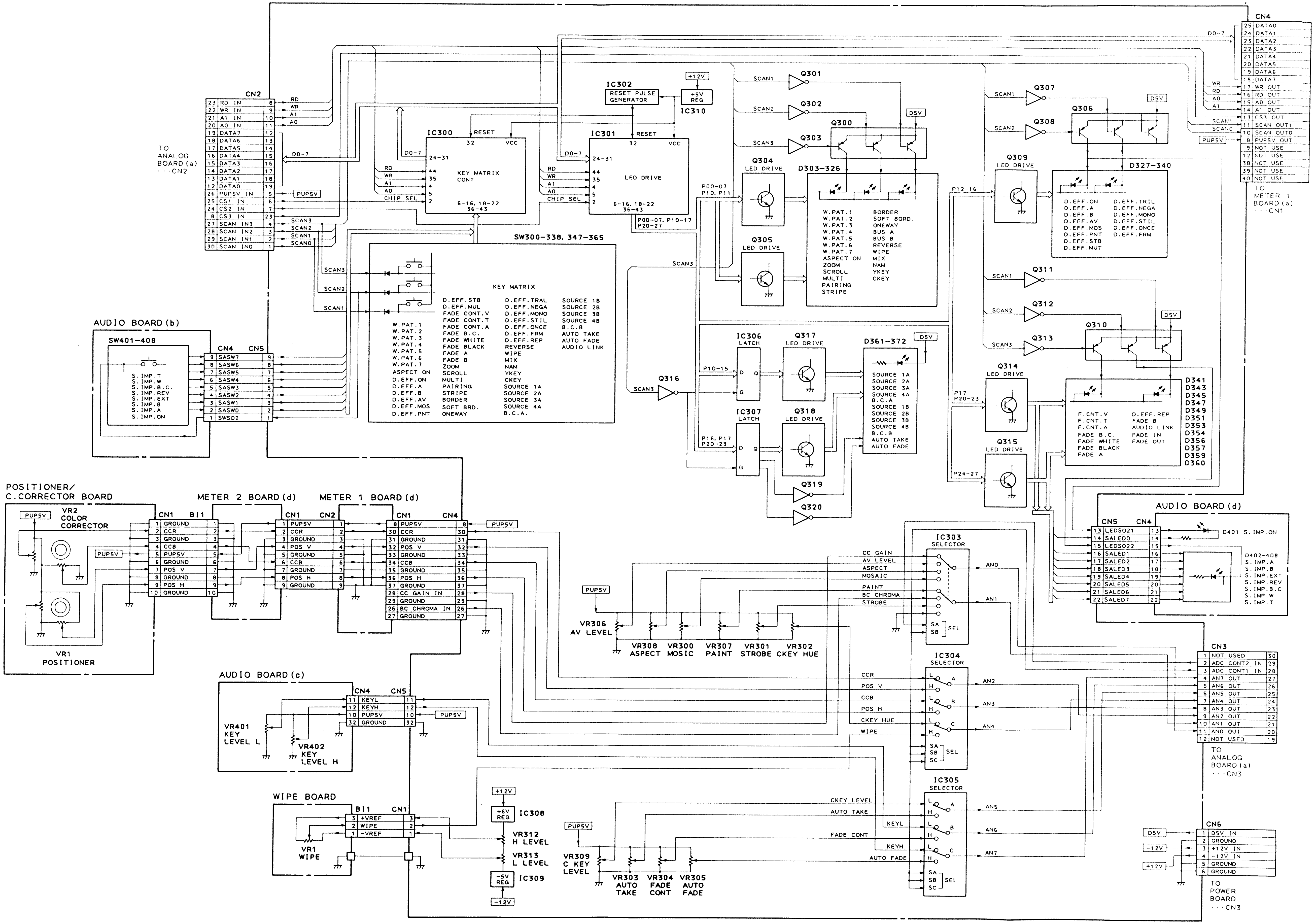
BLOCK DIAGRAM OF DIGITAL BOARD


DIGITAL BOARD
Q5 IC6 (b) +3.6V REG TOP VOLTAGE
Q6 IC6 (a) +1.6V REG BOTTOM VOLTAGE
IC93 +5V REG +12V TO IC5-8
IC5 SELECTOR
CN3 YA IN, GROUND, R-YA IN, GROUND, B-YA IN, GROUND
TO ANALOG BOARD (b) ···CN7
Q7, Q30 BUFFER
Q8 CLAMP
Q25, Q26 BUFFER
CN3 CLAMPA OUT, WHDA OUT, CSYNCA IN, CDCA IN
TO ANALOG BOARD (b) ···CN7
IC87
IC83
IC82
CN2 STB1 IN, STB2 IN, STB3 IN, REG0 IN – REG5 IN, DATA0 – DATA7
TO ANALOG BOARD (a) ···CN5
CHROMA
IC8 A/D CONVERTER
Y
IC7 A/D CONVERTER
CHROMA 3-LINE MEMORY (BUS-A)
IC20 IC21 IC22
IC19 VIDEO SIGNAL AVERAGER (BUS-A)
IC16 IC17 IC18
Y 3-LINE MEMORY (BUS-A)
Q20 DC-DC D5V-1 VDD
IC45-56 Y-CHROMA MEMORY (BUS-A)
IC44 AV MIXING CONT (BUS-A)
IC43 L17 ACH VCO
Q10 LPF TP1 (ACH VCO) TP7 (ACH VCO)
D0-7, REG0-5
IC2 (b), Q1 +3.6V REG TOP VOLTAGE
IC2 (a), Q2 +1.6V REG BOTTOM VOLTAGE
IC92 +5V REG +12V TO IC1-4
IC1 SELECTOR
CN3 YB IN, GROUND, R-YB IN, GROUND, B-YB IN, GROUND
TO ANALOG BOARD (a) ···CN7
Q4, Q31 BUFFER
Q3 CLAMP
Q23, Q24 BUFFER
CN3 CLAMPB OUT, WHDB OUT, CSYNCB IN, CDCB IN
TO ANALOG BOARD ···CN7
CN1 D5V-1 IN, GROUND, +12V IN, D5V-2 IN, GROUND
TO POWER BOARD ···CN5
IC4 A/D CONVERTER
IC3 A/D CONVERTER
CHROMA 3-LINE MEMORY (BUS-B)
IC13 IC14 IC15
IC12 VIDEO SIGNAL AVERAGER (BUS-B)
IC9 IC10 IC11
Y 3-LINE MEMORY (BUS-B)
Q21 DC-DC D5V-1
IC25-36 Y-CHROMA MEMORY (BUS-B)
IC24 AV MIXING CONT (BUS-B)
IC23 L12 BCH VCO
Q22 LPF TP2 (BCH VCO) TP6 (BCH VCO)
IC65 LINE MEMORY
IC64 LINE MEMORY
IC66 WIPE PATTERN GENERATOR
IC63 MIX COLOR CORRECT Y-KEY C-KEY
IC73 ENCODER FADER
Q18 LPF
IC95 +5V REG TO IC67-69
IC96 +5V REG TO IC88-90
SYNC GENERATOR
VR1 FSC
Q12 LPF
IC68 SELECTOR
X1
IC70
IC67 GEN LOCK
IC69 SYNC SEP
IC85
IC94
X2
Q11 LPF

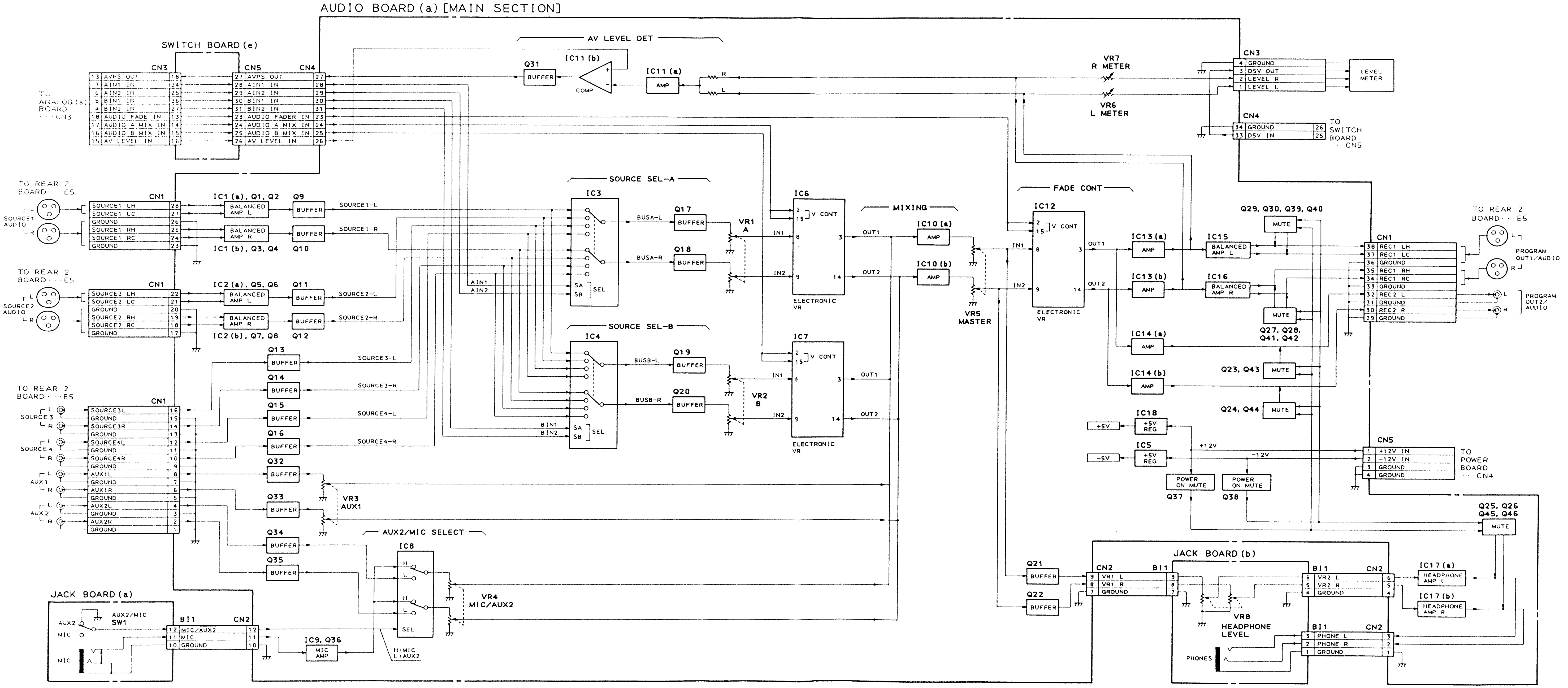
BLOCK DIAGRAM OF DIGITAL BOARD


CHARACTER GENERATOR INTERFACE
IC86
IC81
CN4
1 CHAR IN
2 SYNC OUT
3 GROUND
4 GROUND
5 +9V OUT
6 GROUND
7 KB1S SW OUT
TITLE
+12V
+9V REG
IC79
Q19 CLAMP
IC80
SYNC
BFP
CN2
16 ID OUT
15 MASK IN
TO ANALOG BOARD (a) ···CN2
Q20 DC-DC DSV-1
VDD
IC45-56
Y-CHROMA MEMORY (BUS-A)
A3FN A0-7 YTM0-7 CTM0-3 MY0-7 MC0-3 CAS RAS SIC1-3 SOC1-3 OEFP1-3 OEFN1-3
IC44
AV MIXING CONT (BUS-A)
WHD VP RST YCLK YCD0-7 D0-7, REG0-5
ST3
CLAMP NWHBLK EXI EXSYNC WPC
IC43 OSC
L17 ACH VCO
Q10 LPF
TP1 (ACH VCO)
TP7 (ACH VCO)
LINE MEMORY
IC65
IC64
TP3 (READ VCO)
Q18 LPF
L24 READ VCO
HRST PCN PCP OSCO OSCI
ETX CAM
IC66
WIPE PATTERN GENERATOR
CHC CHB
V H
VP WHD
ST1
RCLK YCLK
CHA BCD0-2 MD0-7 GRAD-7 BOD YCK2 YCLK RCLK C281 CK28 CK14 BCHR CHR
IC63
MIX COLOR CORRECT Y-KEY C-KEY
A0-A7 B0-B7 D0-7, REG0-4 ST2
MY0-7 MC0-7 CY0-7 CC0-7 AY0-7 BY0-7
IC73
ENCODER FADER
REY0-7 REC0-7 PRY0-7 PRC0-7
RCLK YCK YCK2 BLCH CHR
IC78 LATCH
Z5 D/A CONVERTER (R NETWORK)
Q17 Y AMP
YCK2
IC77 LATCH
Z4 D/A CONVERTER (R NETWORK)
Q16 CHROMA AMP
CN2
5 REC YD OUT
4 GROUND
7 REC CD OUT
6 GROUND
9 PRV YD OUT
8 GROUND
11 PRV CD OUT
10 GROUND
3 BBD OUT
2 GROUND
TO ANALOG BOARD (b) ···CN5
PREVIEW Y
IC72 LATCH
Z2 D/A CONVERTER (R NETWORK)
Q14 Y AMP
PREVIEW CHROMA
IC78 LATCH
Z1 D/A CONVERTER (R NETWORK)
Q13 CHROMA AMP
4FSC
BLACK BURST
IC74 LATCH
PRC2, PRC4-6
Z3 D/A CONVERTER (R NETWORK)
Q15 BLACK BURST AMP
IC76 F.F
PRC-7
IC75
CP2
WHD
BFP CBLK LSW SCB VP
Q21 DC-DC DSV-1
IC25-36
Y-CHROMA MEMORY (BUS-B)
IC24
AV MIXING CONT (BUS-B)
IC23 OSC
L12 BCH VCO
Q22 LPF
TP2 (BCH VCO)
TP6 (BCH VCO)
+12V
IC95 +5V REG TO IC67-69
IC96 +5V REG TO IC88-90
SYNC GENERATOR
+5V
VR1 FSC
Q12 LPF
IC68 SELECTOR
SEL
X1
IC70
4FSC
IC67
GEN LOCK
PCHP PCHN EXT
IC85 EXSN
OSCI OSCO
X2
Q11 LPF
PCSN PCSP
LSWC VR 4FSC SCI HTRG H V ADVR ALSC
LSC VR X4SC
XFH
IC69 SYNC SEP
SYNC VP WHD CBLK CP2 BFP LSW
TP8 (FSC)
SCB
IC94
WHD
IC84
ADVANCE SYNC GENERATOR
IC88
GEN LOCK
Q27 LPF
X3
IC89
XFH
IC90 SYNC SEP
SCI 4FSC V H HTRG HDL OSCI OSCO PCSC PCSP
X4
Q29 LPF
SCB X4SC VP WHD LSC VR EXT
EXSN
SYNC IC91
BSC Q28
CN2
18 SYNC OUT
19 BFP OUT
20 NBLK OUT
23 GROUND
12 ADVR OUT
13 ADVS OUT
17 EXT SYNC IN
14 EXT CAM IN
TO ANALOG BOARD (b) ···CN5
CN2
23 GROUND
22 WHD OUT
21 VP OUT
TO ANALOG BOARD (a) ···CN2
SYNC BFP NBLK WHD VP

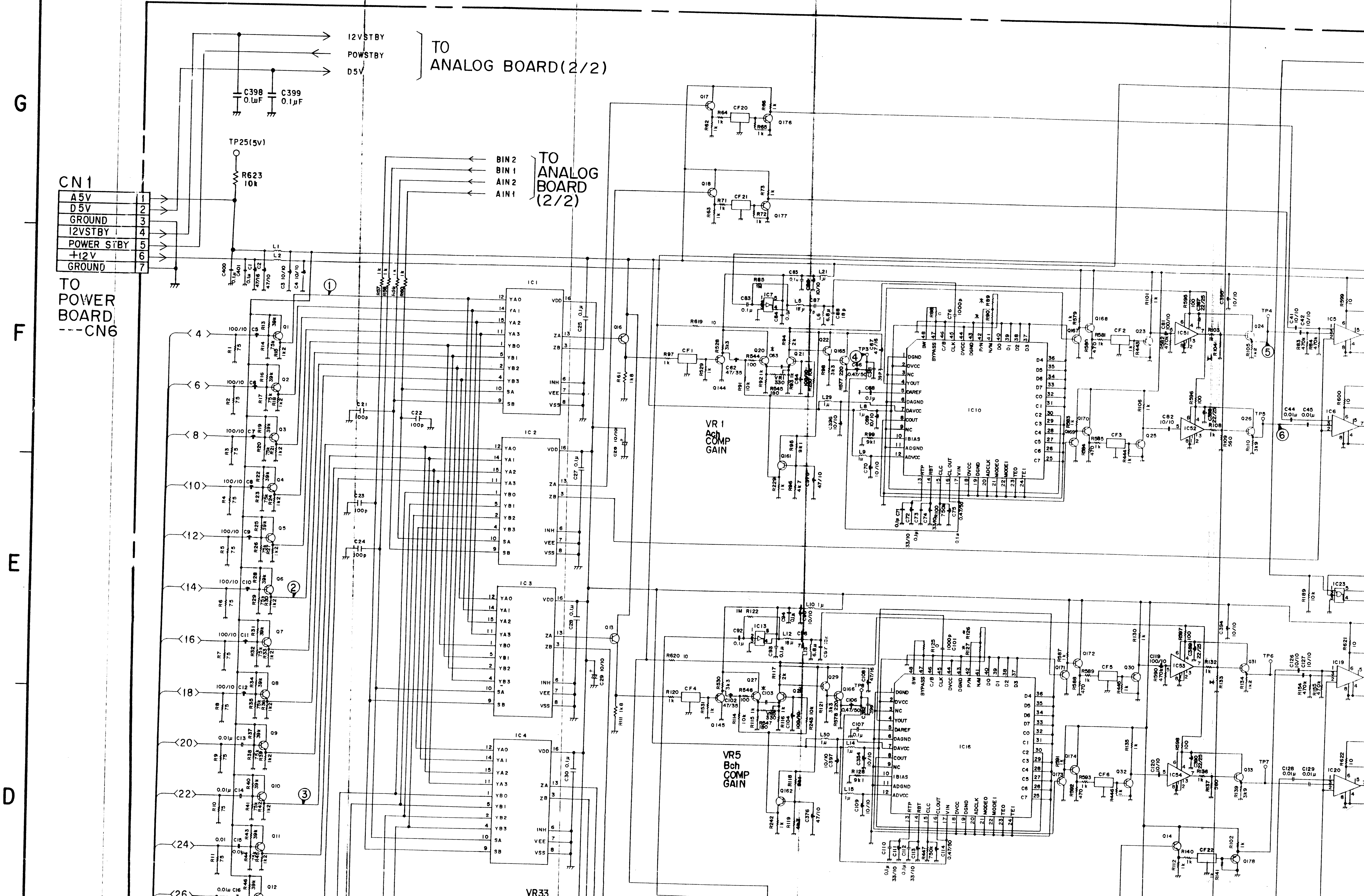
BLOCK DIAGRAM OF SWITCH BOARD


SWITCH BOARD (a)
CN2
RD IN
WR IN
A1 IN
A0 IN
DATA7
DATA6
DATA5
DATA4
DATA3
DATA2
DATA1
DATA0
PUPSV IN
CS1 IN
CS2 IN
CS3 IN
SCAN IN3
SCAN IN2
SCAN IN1
SCAN IN0
TO ANALOG BOARD (a) ···CN2
IC300
KEY MATRIX CONT
IC301
LED DRIVE
IC302
RESET PULSE GENERATOR
IC310
+5V REG
+12V
RESET
VCC
CHIP SEL
D0-7
P00-07 P10, P11
P00-07, P10-17 P20-27
SW300-338, 347-365
KEY MATRIX
D.EFF.STB
D.EFF.MUL
FADE CONT.V
FADE CONT.T
FADE CONT.A
FADE B.C.
FADE WHITE
FADE BLACK
FADE A
FADE B
ZOOM
SCROLL
MULTI
PAIRING
STRIPE
BORDER
SOFT BRD.
ONEWAY
W.PAT.1
W.PAT.2
W.PAT.3
W.PAT.4
W.PAT.5
W.PAT.6
W.PAT.7
ASPECT ON
D.EFF.ON
D.EFF.A
D.EFF.B
D.EFF.AV
D.EFF.MOS
D.EFF.PNT
D.EFF.TRAL
D.EFF.NEGA
D.EFF.MONO
D.EFF.STIL
D.EFF.ONCE
D.EFF.FRM
D.EFF.REP
REVERSE
WIPE
MIX
NAM
YKEY
CKEY
SOURCE 1A
SOURCE 2A
SOURCE 3A
SOURCE 4A
B.C.A.
SOURCE 1B
SOURCE 2B
SOURCE 3B
SOURCE 4B
B.C.B
AUTO TAKE
AUTO FADE
AUDIO LINK
Q301
Q302
Q303
Q300
Q304 LED DRIVE
Q305 LED DRIVE
D303-326
BUS A
BUS B
SOFT BORD.
Q307
Q308
Q306
Q309 LED DRIVE
D327-340
D.EFF.MUT
D.EFF.TRIL
Q311
Q312
Q313
Q310
Q314 LED DRIVE
Q315 LED DRIVE
Q316
IC306 LATCH
IC307 LATCH
Q317 LED DRIVE
Q318 LED DRIVE
Q319
Q320
D361-372
P10-15
P16, P17 P20-23
P12-16
P17 P20-23
P24-27
D5V
SCAN1
SCAN2
SCAN3
F.CNT.V
F.CNT.T
F.CNT.A
FADE B.C.
FADE WHITE
FADE BLACK
FADE A
FADE B
AUDIO LINK
FADE IN
FADE OUT
D341
D343
D345
D347
D349
D351
D353
D354
D356
D357
D359
D360
CN4
DATA0
DATA1
DATA2
DATA3
DATA4
DATA5
DATA6
DATA7
WR OUT
RD OUT
A0 OUT
A1 OUT
CS3 OUT
SCAN OUT1
SCAN OUT0
PUPSV OUT
NOT USE
TO METER 1 BOARD (a) ···CN1
AUDIO BOARD (b)
SW401-408
S.IMP.T
S.IMP.W
S.IMP.B.C.
S.IMP.REV
S.IMP.EXT
S.IMP.B
S.IMP.A
S.IMP.ON
CN4
CN5
SASW7
SASW6
SASW5
SASW4
SASW3
SASW2
SASW1
SASW0
SWSO2
POSITIONER/ C.CORRECTOR BOARD
VR2 COLOR CORRECTOR
VR1 POSITIONER
PUPSV
METER 2 BOARD (d)
METER 1 BOARD (d)
CN1
BI1
CN2
GROUND
CCR
CCB
POS V
POS H
CC GAIN IN
BC CHROMA IN
AUDIO BOARD (d)
CN5
CN4
LEDSO21
SALED0
LEDSO22
SALED1
SALED2
SALED3
SALED4
SALED5
SALED6
SALED7
D401 S.IMP.ON
D402-408
IC303 SELECTOR
CC GAIN
AV LEVEL
ASPECT
MOSAIC
PAINT
BC CHROMA
STROBE
AN0
AN1
SEL
VR306 AV LEVEL
VR308 ASPECT
VR300 MOSIC
VR307 PAINT
VR301 STROBE
VR302 CKEY HUE
IC304 SELECTOR
CKEY HUE
WIPE
AN2
AN3
AN4
IC305 SELECTOR
CKEY LEVEL
AUTO TAKE
FADE CONT
AUTO FADE
KEYL
KEYH
AN5
AN6
AN7
CN3
NOT USED
ADC CONT2 IN
ADC CONT1 IN
AN7 OUT
AN6 OUT
AN5 OUT
AN4 OUT
AN3 OUT
AN2 OUT
AN1 OUT
AN0 OUT
TO ANALOG BOARD (a) ···CN3
AUDIO BOARD (c)
KEYL
KEYH
VR401 KEY LEVEL L
VR402 KEY LEVEL H
WIPE BOARD
+VREF
-VREF
VR1 WIPE
IC308
+6V REG
VR312 H LEVEL
VR313 L LEVEL
-5V REG
IC309
-12V
VR309 C KEY LEVEL
VR303 AUTO TAKE
VR304 FADE CONT
VR305 AUTO FADE
CN6
D5V IN
+12V IN
-12V IN
TO POWER BOARD ···CN3

BLOCK DIAGRAM OF AUDIO BOARD


AUDIO BOARD (a) [MAIN SECTION]
SWITCH BOARD (e)
TO ANALOG (a) BOARD ···CN3
CN3
13 AVPS OUT 18
7 AIN1 IN 24
6 AIN2 IN 25
5 BIN1 IN 26
4 BIN2 IN 27
18 AUDIO FADE IN 13
17 AUDIO A MIX IN 14
16 AUDIO B MIX IN 15
15 AV LEVEL IN 16
CN5
CN4
27 AVPS OUT 27
28 AIN1 IN 28
29 AIN2 IN 29
30 BIN1 IN 30
31 BIN2 IN 31
23 AUDIO FADER IN 23
24 AUDIO A MIX IN 24
25 AUDIO B MIX IN 25
26 AV LEVEL IN 26
AV LEVEL DET
Q31
BUFFER
IC11 (b)
COMP
IC11 (a)
AMP
R
L
VR7
R METER
VR6
L METER
CN3
4 GROUND
3 D5V OUT
2 LEVEL R
1 LEVEL L
LEVEL METER
CN4
34 GROUND 26
33 D5V IN 25
TO SWITCH BOARD ···CN5
TO REAR 2 BOARD···E5
SOURCE1 AUDIO
L
R
CN1
SOURCE1 LH 28
SOURCE1 LC 27
GROUND 26
SOURCE1 RH 25
SOURCE1 RC 24
GROUND 23
IC1 (a), Q1, Q2
BALANCED AMP L
Q9
BUFFER
SOURCE1-L
BALANCED AMP R
BUFFER
SOURCE1-R
IC1 (b), Q3, Q4
Q10
TO REAR 2 BOARD···E5
SOURCE2 AUDIO
L
R
CN1
SOURCE2 LH 22
SOURCE2 LC 21
GROUND 20
SOURCE2 RH 19
SOURCE2 RC 18
GROUND 17
IC2 (a), Q5, Q6
BALANCED AMP L
Q11
BUFFER
SOURCE2-L
BALANCED AMP R
BUFFER
SOURCE2-R
IC2 (b), Q7, Q8
Q12
Q13
BUFFER
SOURCE3-L
Q14
BUFFER
SOURCE3-R
Q15
BUFFER
SOURCE4-L
Q16
BUFFER
SOURCE4-R
TO REAR 2 BOARD···E5
SOURCE3
SOURCE4
AUX1
AUX2
L
R
CN1
SOURCE3L 16
GROUND 15
SOURCE3R 14
GROUND 13
SOURCE4L 12
GROUND 11
SOURCE4R 10
GROUND 9
AUX1L 8
GROUND 7
AUX1R 6
GROUND 5
AUX2L 4
GROUND 3
AUX2R 2
GROUND 1
Q32
BUFFER
Q33
BUFFER
VR3
AUX1
Q34
BUFFER
Q35
BUFFER
AUX2/MIC SELECT
IC8
H
L
SEL
VR4
MIC/AUX2
H:MIC
L:AUX2
JACK BOARD (a)
AUX2/MIC
SW1
AUX2
MIC
MIC
BI1
CN2
12 MIC/AUX2 12
11 MIC 11
10 GROUND 10
IC9, Q36
MIC AMP
SOURCE SEL-A
IC3
AIN1
AIN2
SA
SB
SEL
BUSA-L
BUSA-R
Q17
BUFFER
Q18
BUFFER
VR1
A
SOURCE SEL-B
IC4
BIN1
BIN2
SA
SB
SEL
BUSB-L
BUSB-R
Q19
BUFFER
Q20
BUFFER
VR2
B
IC6
2
15
V CONT
IN1
IN2
8
9
3
14
OUT1
OUT2
ELECTRONIC VR
IC7
V CONT
ELECTRONIC VR
MIXING
IC10 (a)
AMP
IC10 (b)
AMP
VR5
MASTER
FADE CONT
IC12
V CONT
IN1
IN2
OUT1
OUT2
ELECTRONIC VR
IC13 (a)
AMP
IC13 (b)
AMP
IC15
BALANCED AMP L
IC16
BALANCED AMP R
Q29, Q30, Q39, Q40
MUTE
MUTE
Q27, Q28, Q41, Q42
IC14 (a)
AMP
IC14 (b)
AMP
Q23, Q43
MUTE
Q24, Q44
MUTE
TO REAR 2 BOARD···E5
CN1
38 REC1 LH
37 REC1 LC
36 GROUND
35 REC1 RH
34 REC1 RC
33 GROUND
32 REC2 L
31 GROUND
30 REC2 R
29 GROUND
L
R
PROGRAM OUT1/AUDIO
PROGRAM OUT2/AUDIO
IC18
+5V REG
+5V
IC5
+5V REG
−5V
+12V
−12V
POWER ON MUTE
Q37
POWER ON MUTE
Q38
CN5
1 +12V IN
2 −12V IN
3 GROUND
4 GROUND
TO POWER BOARD ···CN4
Q25, Q26
Q45, Q46
MUTE
JACK BOARD (b)
Q21
BUFFER
Q22
BUFFER
CN2
BI1
9 VR1 L 9
8 VR1 R 8
7 GROUND 7
VR8
HEADPHONE LEVEL
PHONES
BI1
CN2
6 VR2 L 6
5 VR2 R 5
4 GROUND 4
3 PHONE L 3
2 PHONE R 2
1 GROUND 1
IC17 (a)
HEADPHONE AMP L
IC17 (b)
HEADPHONE AMP R

ANALOG BOARD (1/2)


G
F
E
D
12VSTBY
POWSTBY
D5V
TO ANALOG BOARD(2/2)
C398 0.1μF
C399 0.1μF
TP25(5V)
R623 10k
CN1
A5V 1
D5V 2
GROUND 3
12VSTBY 4
POWER STBY 5
+12V 6
GROUND 7
TO POWER BOARD ---CN6
BIN2
BIN1
AIN2
AIN1
TO ANALOG BOARD (2/2)
L1
L2
IC1
IC2
IC3
IC4
YA0
YA1
YA2
YA3
YB0
YB1
YB2
YB3
SA
SB
VDD
ZA
ZB
INH
VEE
VSS
Q16
Q13
Q17
Q18
CF20
CF21
Q176
Q177
CF1
CF4
IC7
IC13
IC10
IC16
VR1 Ach COMP GAIN
VR5 Bch COMP GAIN
VR33
DGND
DVCC
NC
YOUT
DAREF
DAGND
DAVCC
COUT
IBIAS
ADGND
ADVCC
BW
BYPASS
C/B
CLK
DVCC
DGND
P/N
N/M
RTP
RBT
CLC
CL OUT
VIN
ADCLK
MODE0
MODE1
TE0
TE1
D0
D1
D2
D3
D4
D5
D6
D7
C0
C1
C2
C3
C4
C5
C6
C7
IC51
IC52
IC53
IC54
IC5
IC6
IC19
IC20
IC23
CF2
CF3
CF5
CF6
CF22
TP4
TP5
TP6
TP7
Q14
Q178
4
5
6
1
2
3

AGRAM OF ANALOG BOARD (1)

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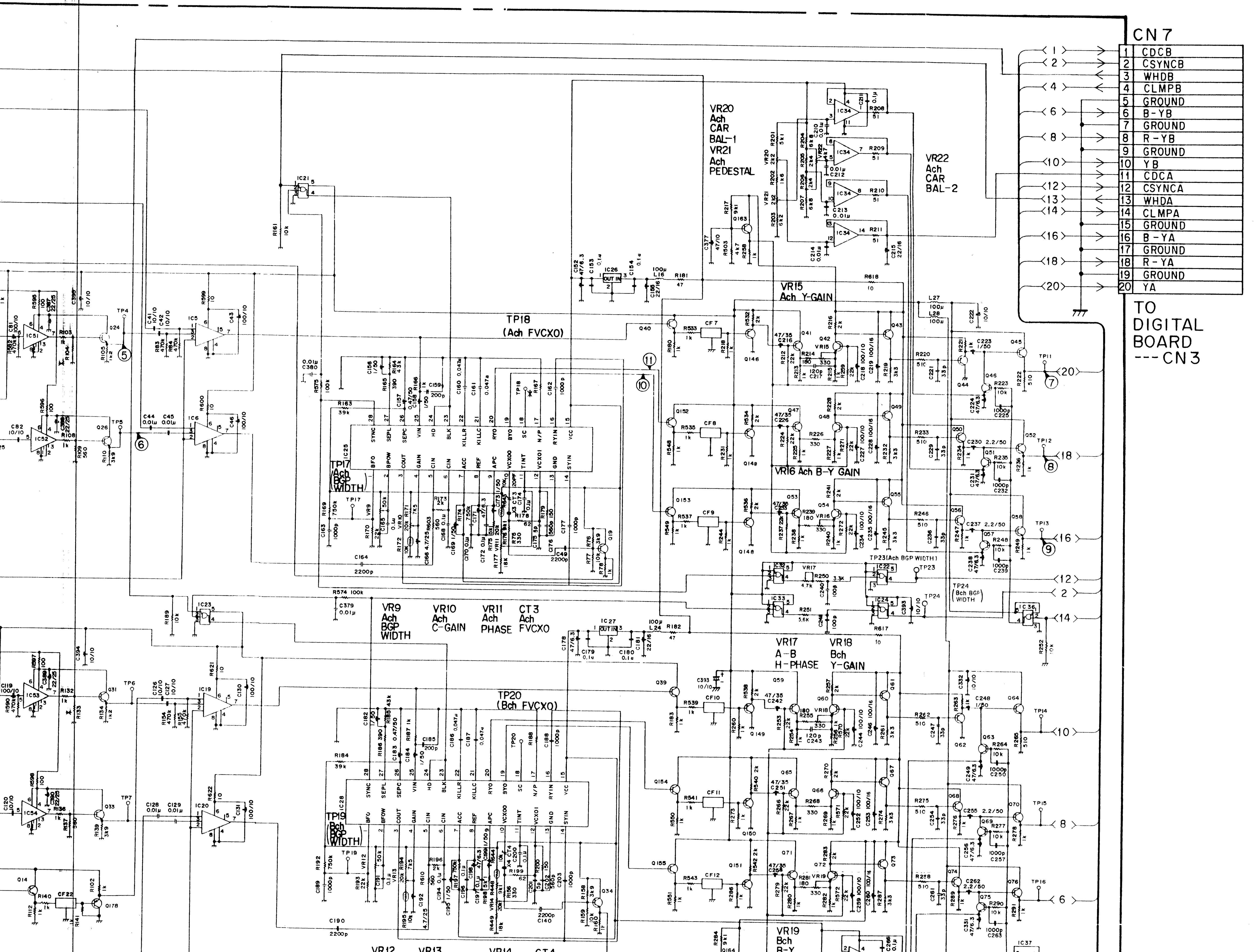
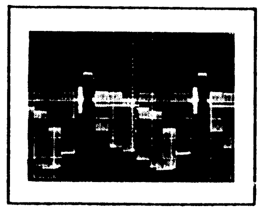
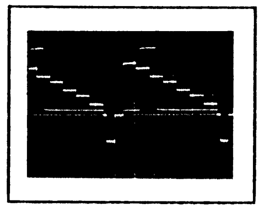


CN7
1 CDCB
2 CSYNCB
3 WHDB
4 CLMPB
5 GROUND
6 B-YB
7 GROUND
8 R-YB
9 GROUND
10 YB
11 CDCA
12 CSYNCA
13 WHDA
14 CLMPA
15 GROUND
16 B-YA
17 GROUND
18 R-YA
19 GROUND
20 YA
TO DIGITAL BOARD ---CN3
VR20 Ach CAR BAL-1
VR21 Ach PEDESTAL
VR22 Ach CAR BAL-2
VR15 Ach Y-GAIN
VR16 Ach B-Y GAIN
VR17 A-B H-PHASE
VR18 Bch Y-GAIN
VR19 Bch B-Y
VR9 Ach BGP WIDTH
VR10 Ach C-GAIN
VR11 Ach PHASE
CT3 Ach FVCXO
TP18 (Ach FVCXO)
TP17 (Ach BGP WIDTH)
TP20 (Bch FVCXO)
TP19 Bch BGP WIDTH
TP23 (Ach BGP WIDTH)
TP24 (Bch BGP WIDTH)
IC25
IC28
IC26
IC27
IC21
IC23
IC34
IC36
IC37
IC51
IC52
IC53
IC54
IC5
IC6
IC19
IC20
TP4
TP5
TP6
TP7
TP11
TP12
TP13
TP14
TP15
TP16
SYNC SEPL SEPC VIN HD BLK KILLR KILLC RYO BYO SC N/P VCC
BFO BFOW COUT GAIN CIN CIN ACC REF APC VCXOO TINT VCXOI GND SYIN

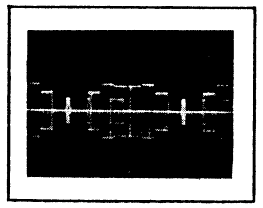
1. 10μs / DIV, 0.2V / DIV



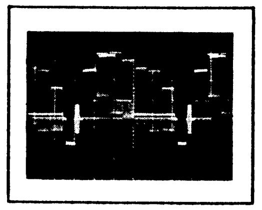
2. 10μs / DIV, 0.2V / DIV



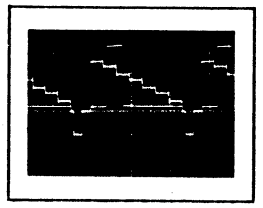
3. 10μs / DIV, 0.2V / DIV



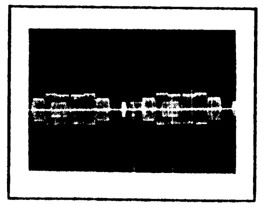
4. 10μs / DIV, 0.5V / DIV



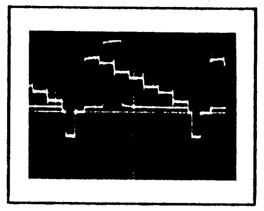
5. 10μs / DIV, 0.1V / DIV



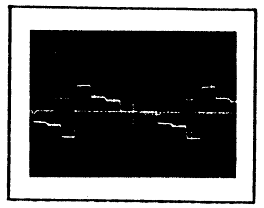
6. 10μs / DIV, 0.1V / DIV



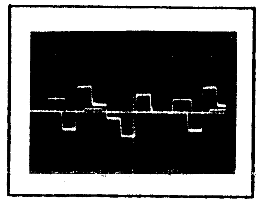
7. 10μs / DIV, 0.5V / DIV



8. 10μs / DIV, 0.5V / DIV



9. 10μs / DIV, 0.5V / DIV

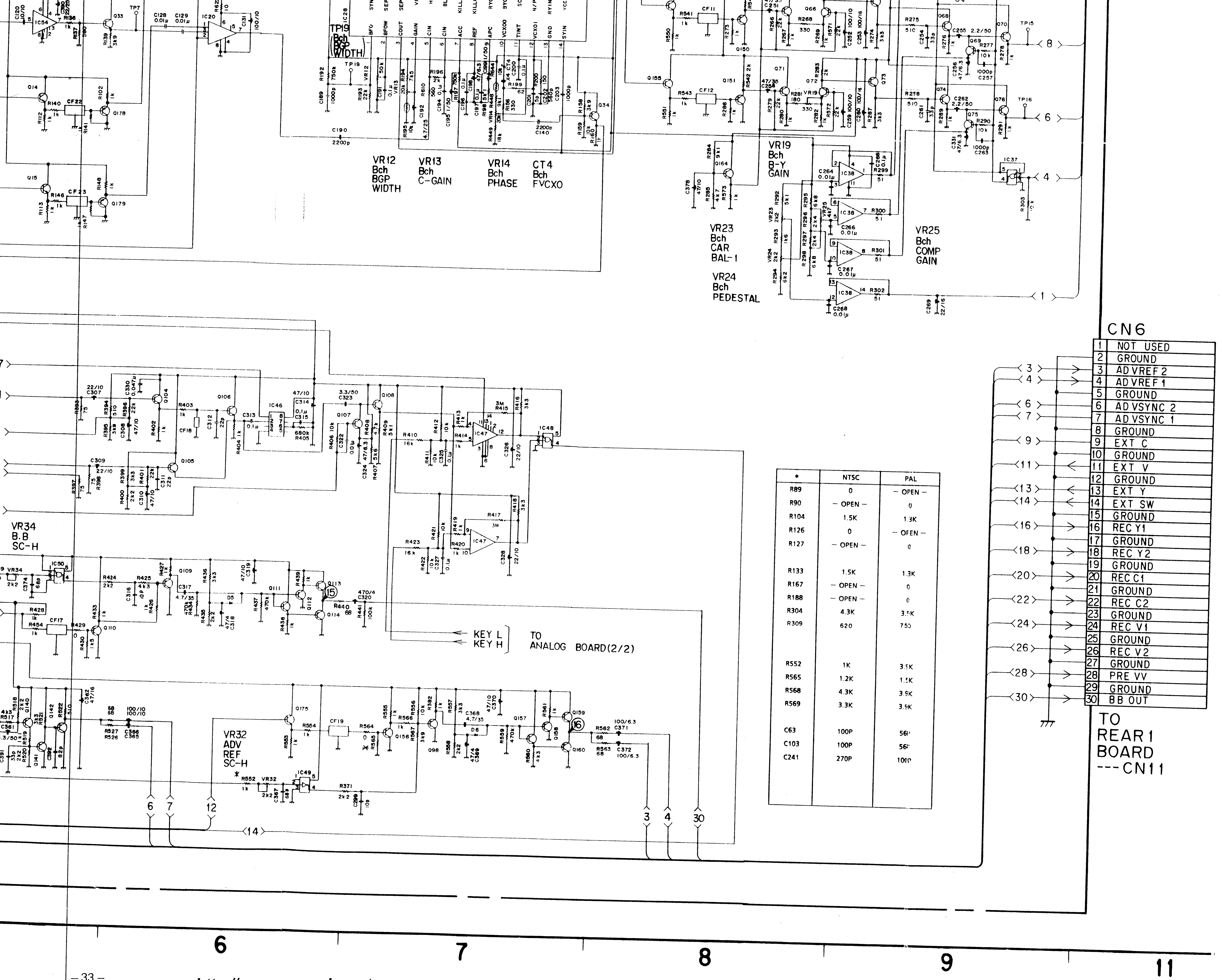


10. 10μs / DIV, 0.5V / DIV

<Index>

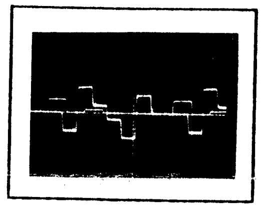
ANALOG BOARD (1/2)

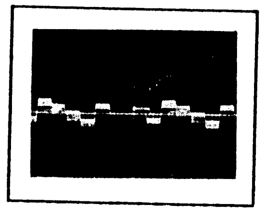
IC1	F2
IC2	E2
IC3	E2
IC4	D2
IC5	F6
IC6	F6
IC7	F3
IC10	F4
IC13	E3
IC16	D4
IC19	E6
IC20	D6
IC21	G6
IC22	E9
IC23	E6
IC24	E9
IC25	F7
IC26	G8
IC27	E7
IC28	D7
IC32	E8
IC33	E8
IC34	G8
IC36	E9
IC37	D9
IC38	C9
IC40	C3
IC41	C3
IC42	C3
IC45	B4
IC46	C6
IC47	B7,C7
IC48	C7
IC49	A6
IC50	B5
IC51	F5
IC52	F5
IC53	E5
IC54	D5
Q1	F1
Q2	F1
Q3	F1
Q4	F1
Q5	E1
Q6	E1
Q7	E1
Q8	E1
Q9	E1
Q10	E1
Q11	E1
Q12	E1
Q13	E3
Q14	D5
Q15	D5
Q16	D3
Q17	G3
Q18	G3
Q19	E7
Q20	F3
Q21	F3
Q22	F4
Q23	F5
Q24	F5
Q25	F5
Q26	F5
Q27	E3
Q28	E3
Q29	E4
Q30	E5
Q31	E5
Q32	D5
Q33	D5
Q34	D7
Q39	E8
Q40	F8
Q41	F8
Q42	F8
Q43	F9
Q44	F9
Q45	F9
Q46	F9
Q47	F8
Q48	F8
Q49	F9
Q50	F9
Q51	F9
Q52	F9
Q53	E8
Q54	E8
Q55	F9
Q56	E9
Q57	E9
Q58	E9
Q59	E8
Q60	E8
Q61	E9
Q62	E9
Q63	E9
Q64	E9
Q65	D8
Q66	D8
Q67	D9
Q68	D9
Q69	D9
Q70	D9
Q71	D8
Q72	D8


TP19 (Bch BGP WIDTH)
VR12 Bch BGP WIDTH
VR13 Bch C-GAIN
VR14 Bch PHASE
CT4 Bch FVCXO
VR19 Bch B-Y GAIN
VR23 Bch CAR BAL-1
VR24 Bch PEDESTAL
VR25 Bch COMP GAIN
VR34 B.B SC-H
VR32 ADV REF SC-H
KEY L
KEY H
TO ANALOG BOARD(2/2)
CN6
1 NOT USED
2 GROUND
3 AD VREF 2
4 AD VREF 1
5 GROUND
6 AD VSYNC 2
7 AD VSYNC 1
8 GROUND
9 EXT C
10 GROUND
11 EXT V
12 GROUND
13 EXT Y
14 EXT SW
15 GROUND
16 REC Y1
17 GROUND
18 REC Y2
19 GROUND
20 REC C1
21 GROUND
22 REC C2
23 GROUND
24 REC V1
25 GROUND
26 REC V2
27 GROUND
28 PRE VV
29 GROUND
30 BB OUT
TO REAR1 BOARD ---CN11
6
7
8
9
11

*	NTSC	PAL
R89	0	– OPEN –
R90	– OPEN –	0
R104	1.5K	1.3K
R126	0	– OPEN –
R127	– OPEN –	0
R133	1.5K	1.3K
R167	– OPEN –	0
R188	– OPEN –	0
R304	4.3K	3.9K
R309	620	750
R552	1K	3.9K
R565	1.2K	1.5K
R568	4.3K	3.9K
R569	3.3K	3.9K
C63	100P	56P
C103	100P	56P
C241	270P	100P

9. 10µs / DIV, 0.5V / DIV


10. 10µs / DIV, 0.5V / DIV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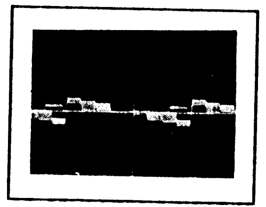
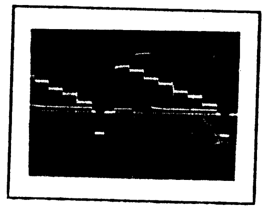
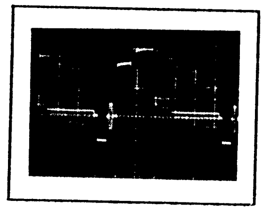
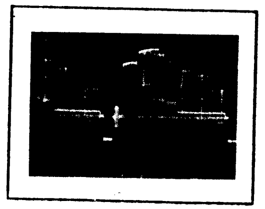
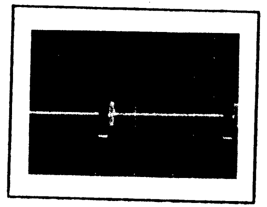
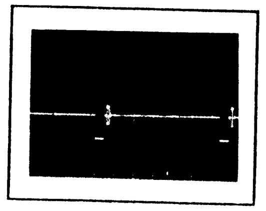

12. 10µs / DIV, 0.5V / DIV


13. 10µs / DIV, 0.5V / DIV

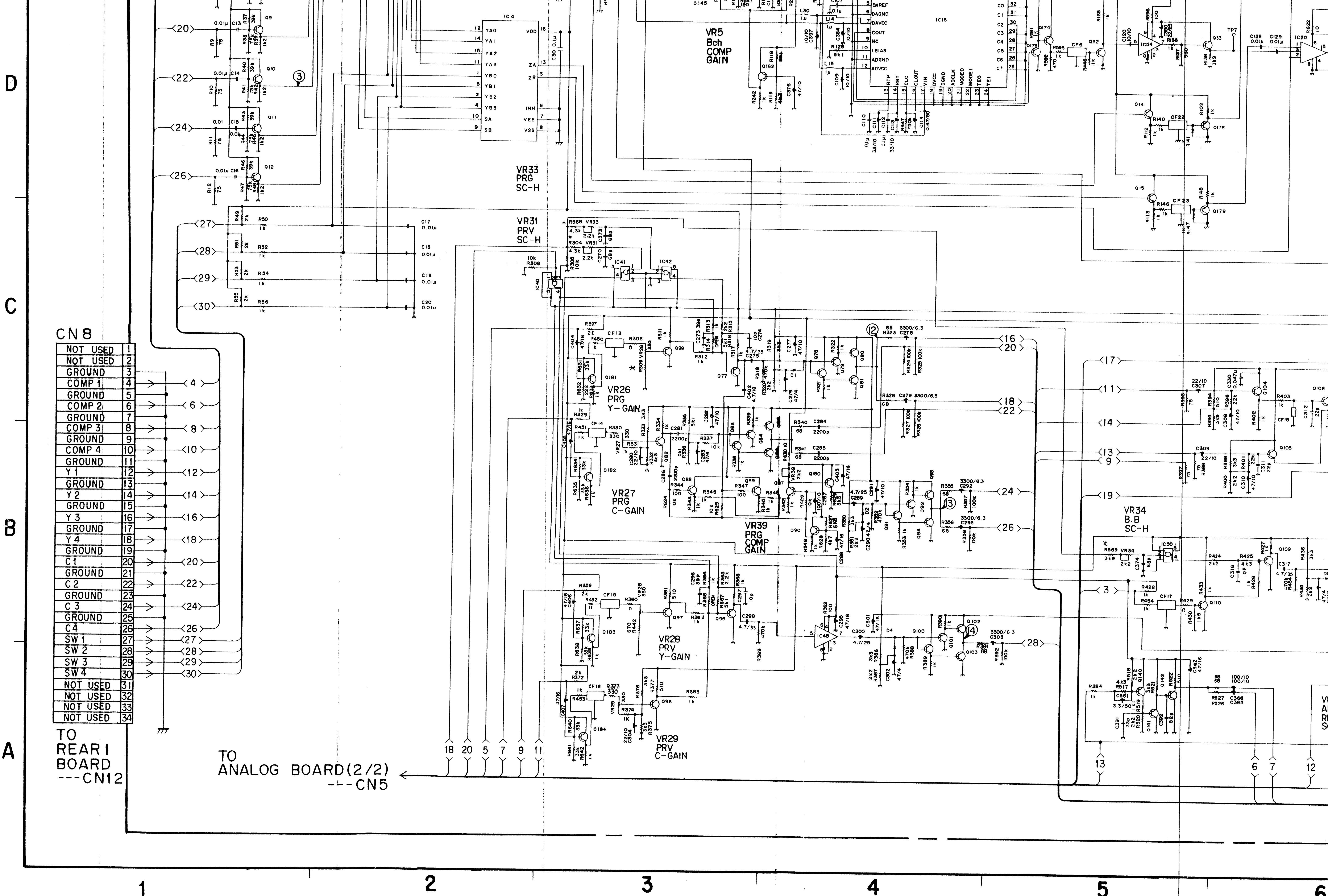

14. 10µs / DIV, 0.5V / DIV


15. 10µs / DIV, 0.5V / DIV


16. 10µs / DIV, 0.5V / DIV



Q53	E8
Q54	E8
Q55	F9
Q56	E9
Q57	E9
Q58	E9
Q59	E8
Q60	E8
Q61	E9
Q62	E9
Q63	E9
Q64	E9
Q65	D8
Q66	D8
Q67	D9
Q68	D9
Q69	D9
Q70	D9
Q71	D8
Q72	D8
Q73	D9
Q74	D9
Q75	D9
Q76	D9
Q77	C3
Q78	C4
Q79	C4
Q80	C4
Q81	C4
Q82	B3
Q83	B3
Q84	C3
Q85	C4
Q86	B4
Q87	B4
Q88	B3
Q89	B3
Q90	B4
Q91	B4
Q92	B4
Q93	B4
Q94	B4
Q95	B3
Q96	A3
Q97	B3
Q98	A7
Q99	C3
Q100	B4
Q101	B4
Q102	B4
Q103	B4
Q104	C6
Q105	C6
Q106	C6
Q107	C7
Q108	C7
Q109	B6
Q110	B5
Q111	B6
Q112	B6
Q113	B6
Q114	B6
Q140	A5
Q141	A5
Q142	A5
Q144	F3
Q145	E3
Q146	F8
Q147	F8
Q148	E8
Q149	E8
Q150	D8
Q151	D8
Q152	F8
Q153	E8
Q154	D8
Q155	D8
Q156	A7
Q157	A7
Q158	A7
Q159	A7
Q160	A7
Q161	F3
Q162	D3
Q163	G8
Q164	D8
Q165	F4
Q166	E4
Q167	F5
Q168	F5
Q169	F5
Q170	F5
Q171	E5
Q172	E5
Q173	D5
Q174	D5
Q175	A6
Q176	G3
Q177	G3
Q178	D5
Q179	C5
Q180	B5
Q181	C3
Q182	B3
Q183	B3
Q184	A3
D1	C4
D2	B4
D4	B4
D5	B6
D6	A7


CN8
1 NOT USED
2 NOT USED
3 GROUND
4 COMP 1
5 GROUND
6 COMP 2
7 GROUND
8 COMP 3
9 GROUND
10 COMP 4
11 GROUND
12 Y 1
13 GROUND
14 Y 2
15 GROUND
16 Y 3
17 GROUND
18 Y 4
19 GROUND
20 C 1
21 GROUND
22 C 2
23 GROUND
24 C 3
25 GROUND
26 C4
27 SW 1
28 SW 2
29 SW 3
30 SW 4
31 NOT USED
32 NOT USED
33 NOT USED
34 NOT USED
TO REAR 1 BOARD ---CN12
TO ANALOG BOARD(2/2) ---CN5
IC4
IC16
VR5 Bch COMP GAIN
VR33 PRG SC-H
VR31 PRV SC-H
VR26 PRG Y-GAIN
VR27 PRG C-GAIN
VR39 PRG COMP GAIN
VR28 PRV Y-GAIN
VR29 PRV C-GAIN
VR34 B.B SC-H
IC40
IC41
IC42
IC45
IC50
IC54
IC20
TP7
D
C
B
A
1
2
3
4
5
6

SCHEMATIC DIAGRAM OF ANA

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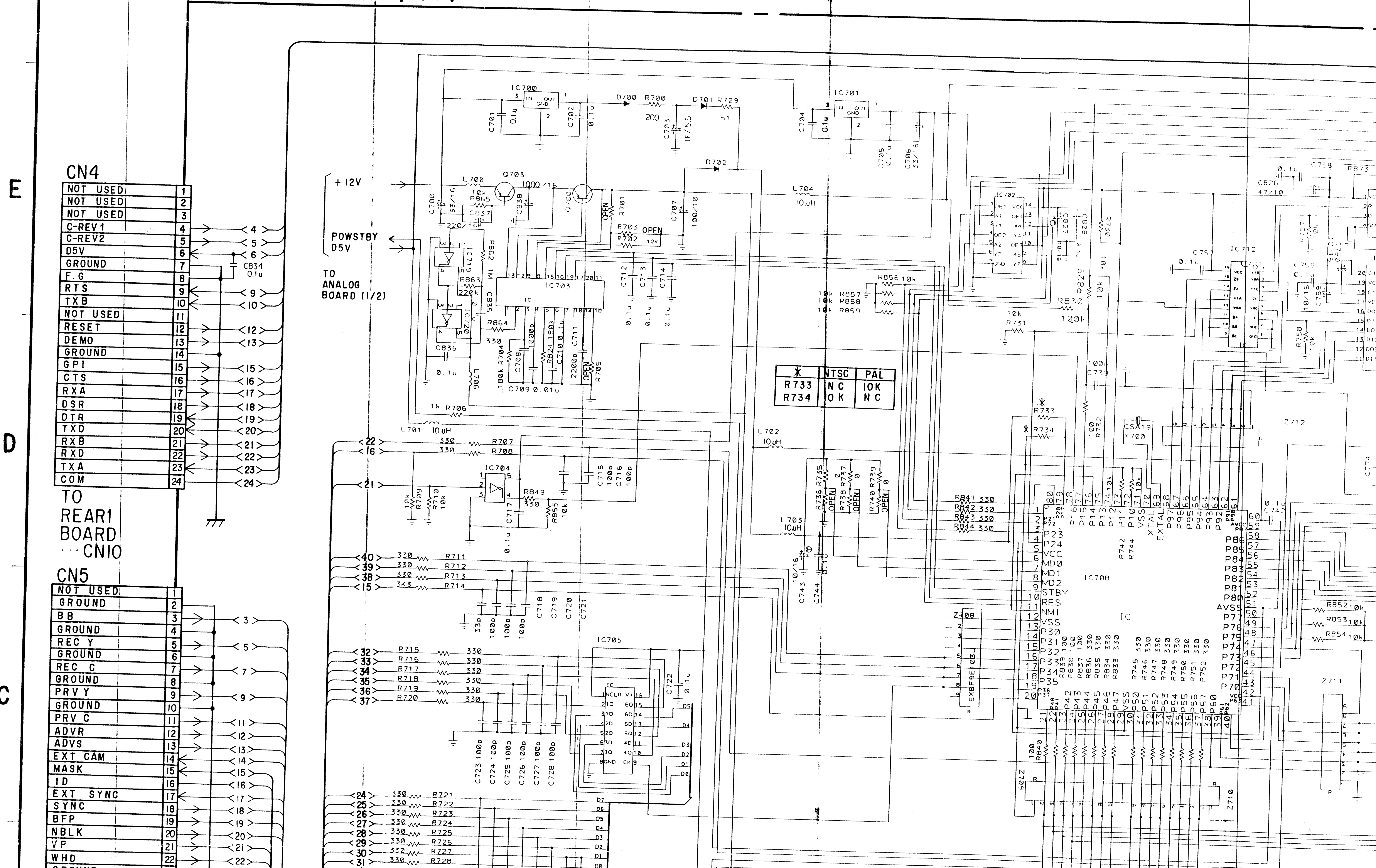
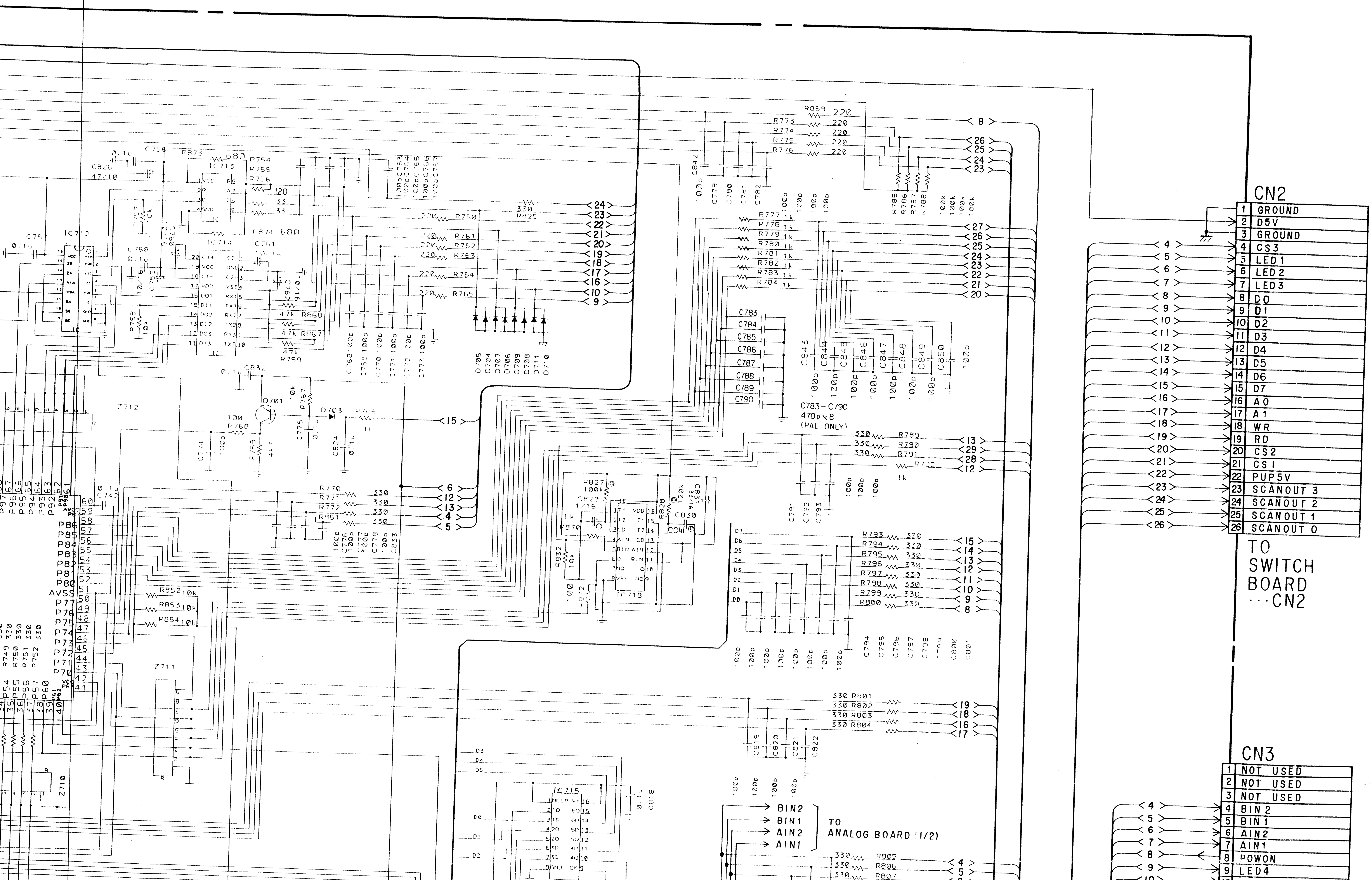
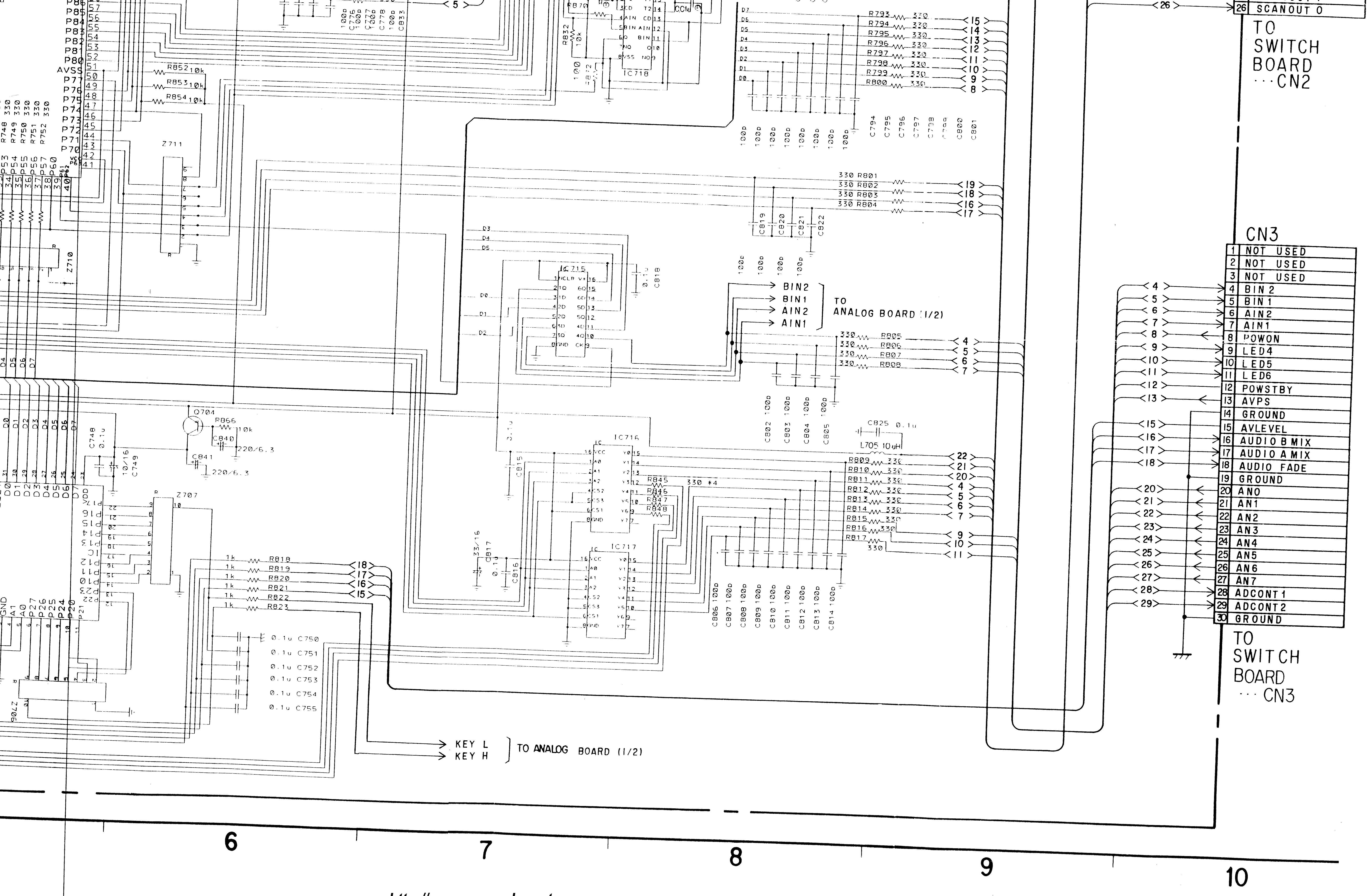
ANALOG BOARD (2/2)

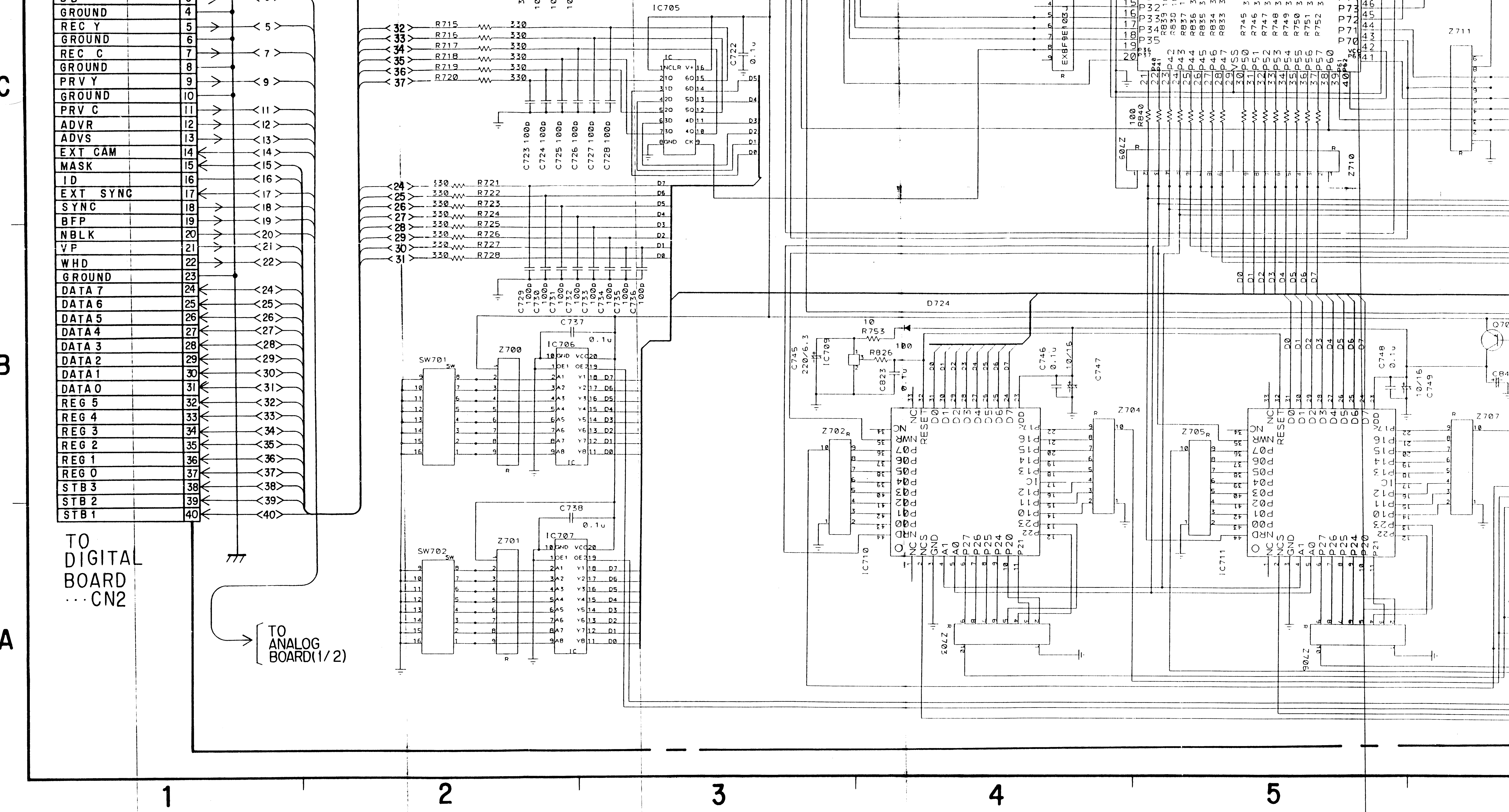

E
D
C
CN4
NOT USED 1
NOT USED 2
NOT USED 3
C-REV1 4
C-REV2 5
D5V 6
GROUND 7
F.G 8
RTS 9
TXB 10
NOT USED 11
RESET 12
DEMO 13
GROUND 14
GPI 15
CTS 16
RXA 17
DSR 18
DTR 19
TXD 20
RXB 21
RXD 22
TXA 23
COM 24
TO REAR1 BOARD ···CN10
CN5
NOT USED 1
GROUND 2
BB 3
GROUND 4
REC Y 5
GROUND 6
REC C 7
GROUND 8
PRV Y 9
GROUND 10
PRV C 11
ADVR 12
ADVS 13
EXT CAM 14
MASK 15
ID 16
EXT SYNC 17
SYNC 18
BFP 19
NBLK 20
VP 21
WHD 22
C834 0.1u
+12V
POWSTBY
D5V
TO ANALOG BOARD (1/2)
IC700
IC701
IC702
IC703
IC704
IC705
IC708
IC712
IC719
IC720
Q703
Q700
D700
D701
D702
R700 200
R729 51
L700
L701 10uH
L702 10uH
L703 10uH
L704 10uH
L706
C703 1F/5.5
C707 100/10
C706 33/16
C826 47/10
R703 OPEN
R702 12K
R862 1M
R863 220k
R864 330
R706 1k
R707 330
R708 330
R849 330
R855 10k
R709 10k
R710 10k
R711 330
R712 330
R713 330
R714 3K3
R715 330
R716 330
R717 330
R718 330
R719 330
R720 330
R721 330
R722 330
R723 330
R724 330
R725 330
R726 330
R727 330
R728 330
R731 10k
R830 100k
R829 10k
R856 10k
R857 10k
R858 10k
R859 10k
R841 330
R842 330
R843 330
R844 330
R852 10k
R853 10k
R854 10k
R733
R734
R735
R736 OPEN
R737
R738 OPEN
R739
R740 OPEN
C739 100p
CSA19 X700
C743 10/16
C744 0.1u
C742 0.1u
Z708 EXBF9E103J
Z709
Z710
Z711
Z712
XTAL
EXTAL
VCC
MD0
MD1
MD2
STBY
RES
NMI
VSS
AVSS
AVCC

✻	NTSC	PAL
R733	N C	10K
R734	10 K	N C

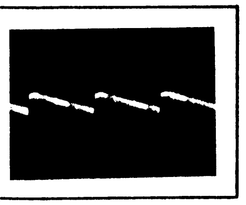
C DIAGRAM OF ANALOG BOARD (2)


CN2
1 GROUND
2 D5V
3 GROUND
4 CS3
5 LED1
6 LED2
7 LED3
8 D0
9 D1
10 D2
11 D3
12 D4
13 D5
14 D6
15 D7
16 A0
17 A1
18 WR
19 RD
20 CS2
21 CS1
22 PUP5V
23 SCANOUT 3
24 SCANOUT 2
25 SCANOUT 1
26 SCANOUT 0
TO SWITCH BOARD ···CN2
CN3
1 NOT USED
2 NOT USED
3 NOT USED
4 BIN2
5 BIN1
6 AIN2
7 AIN1
8 POWON
9 LED4
BIN2
BIN1
AIN2
AIN1
TO ANALOG BOARD (1/2)
C783 - C790
470p×8
(PAL ONLY)
IC712
IC713
IC714
IC715
IC718
Q701
D703
Z710
Z711
Z712
D705 D704 D707 D706 D709 D708 D711 D710
R869 220
R773 220
R774 220
R775 220
R776 220
R785 R786 R787 R788
100k 100k 100k 100k
R777 1k
R778 1k
R779 1k
R780 1k
R781 1k
R782 1k
R783 1k
R784 1k
R789 330
R790 330
R791 330
R792 1k
R793 330
R794 330
R795 330
R796 330
R797 330
R798 330
R799 330
R800 330
R801 330
R802 330
R803 330
R804 330
R805 330
R806 330
R807 330
R770 330
R771 330
R772 330
R851 330
R852 10k
R853 10k
R854 10k
R760 220
R761 220
R762 220
R763 220
R764 220
R765 220
R825 330
R873 680
R874 680
R754 120
R755 33
R756 33
R867 4.7k
R868 4.7k
R759 47k
R757 10k
R758 10k
R767 10k
R768 100
R769 4k7
R766 1k
R827 100k
R828 120k
R832 10k
R870 1k
C826 47/10
C756 0.1u
C757 0.1u
C758 0.1u 10/16
C759
C761 10/16
C762 10/16
C763 C764 C765 C766 C767 100p
C768 C769 C770 C771 C772 C773 100p
C774 100p
C775 0.1u
C824 0.1u
C832 0.1u
C742 0.1u
C776 C777 C778 C833 100p
C829 1/16
C830
C831
C842 100p
C779 C780 C781 C782
C843 C844 C845 C846 C847 C848 C849 C850 100p
C791 C792 C793 100p
C794 C795 C796 C797 C798 C799 C800 C801 100p
C819 C820 C821 C822 100p
C818 0.1u
P97 P96 P95 P94 P93 P92 P91
P86 P85 P84 P83 P82 P81 P80
AVSS
P77 P76 P75 P74 P73 P72 P71 P70
P54 P55 P56 P57 P60 P61 P62
R749 R750 R751 R752 330
D0 D1 D2 D3 D4 D5 D6 D7


26 SCANOUT 0
TO SWITCH BOARD ···CN2
CN3
1 NOT USED
2 NOT USED
3 NOT USED
4 BIN 2
5 BIN 1
6 AIN 2
7 AIN 1
8 POWON
9 LED4
10 LED5
11 LED6
12 POWSTBY
13 AVPS
14 GROUND
15 AVLEVEL
16 AUDIO B MIX
17 AUDIO A MIX
18 AUDIO FADE
19 GROUND
20 AN0
21 AN1
22 AN2
23 AN3
24 AN4
25 AN5
26 AN6
27 AN7
28 ADCONT 1
29 ADCONT 2
30 GROUND
TO SWITCH BOARD ··· CN3
BIN2
BIN1
AIN2
AIN1
TO ANALOG BOARD (1/2)
KEY L
KEY H
TO ANALOG BOARD (1/2)
IC715
IC716
IC717
IC718
Z707
Z710
Z711
Z706
Q704
R866 10k
C840
C841
220/6.3
C748 0.1u
C749 10/16
C815
C816
C817 33/16
C818 0.1u
C825 0.1u
L705 10uH
R793 330
R794 330
R795 330
R796 330
R797 330
R798 330
R799 330
R800 330
330 R801
330 R802
330 R803
330 R804
R805 330
R806 330
R807 330
R808 330
R809 330
R810 330
R811 330
R812 330
R813 330
R814 330
R815 330
R816 330
R817 330
R845
R846
R847
R848
330 *4
R818 1k
R819 1k
R820 1k
R821 1k
R822 1k
R823 1k
C750 0.1u
C751 0.1u
C752 0.1u
C753 0.1u
C754 0.1u
C755 0.1u
R852 10k
R853 10k
R854 10k
R832 10k
R748 330
R749 330
R750 330
R751 330
R752 330
AVSS
P70 P71 P72 P73 P74 P75 P76 P77 P80 P81 P82 P83 P84 P85
P53 P54 P55 P56 P57 P60
D0 D1 D2 D3 D4 D5 D6 D7
6
7
8
9
10


GROUND 4
REC Y 5
GROUND 6
REC C 7
GROUND 8
PRV Y 9
GROUND 10
PRV C 11
ADVR 12
ADVS 13
EXT CAM 14
MASK 15
ID 16
EXT SYNC 17
SYNC 18
BFP 19
NBLK 20
VP 21
WHD 22
GROUND 23
DATA 7 24
DATA 6 25
DATA 5 26
DATA 4 27
DATA 3 28
DATA 2 29
DATA 1 30
DATA 0 31
REG 5 32
REG 4 33
REG 3 34
REG 2 35
REG 1 36
REG 0 37
STB 3 38
STB 2 39
STB 1 40
TO DIGITAL BOARD ···CN2
TO ANALOG BOARD(1/2)
IC705
R715 330
R716 330
R717 330
R718 330
R719 330
R720 330
C722 0.1u
C723 100p
C724 100p
C725 100p
C726 100p
C727 100p
C728 100p
R721 330
R722 330
R723 330
R724 330
R725 330
R726 330
R727 330
R728 330
C729 100p
C730 100p
C731 100p
C732 100p
C733 100p
C734 100p
C735 100p
C736 100p
C737 0.1u
IC706
SW701
Z700
C738 0.1u
IC707
SW702
Z701
D724
R753 10
R826 100
C745 220/6.3
IC709
C823 0.1u
C746 0.1u 10/16
C747
Z702
IC710
Z703
Z704
Z705
IC711
Z706
Z707
C748 0.1u
C749 10/16
Z709
Z710
Z711
R840 100
Q70
C
B
A
1
2
3
4
5

1.5mμs / DIV, 20 mV / DIV



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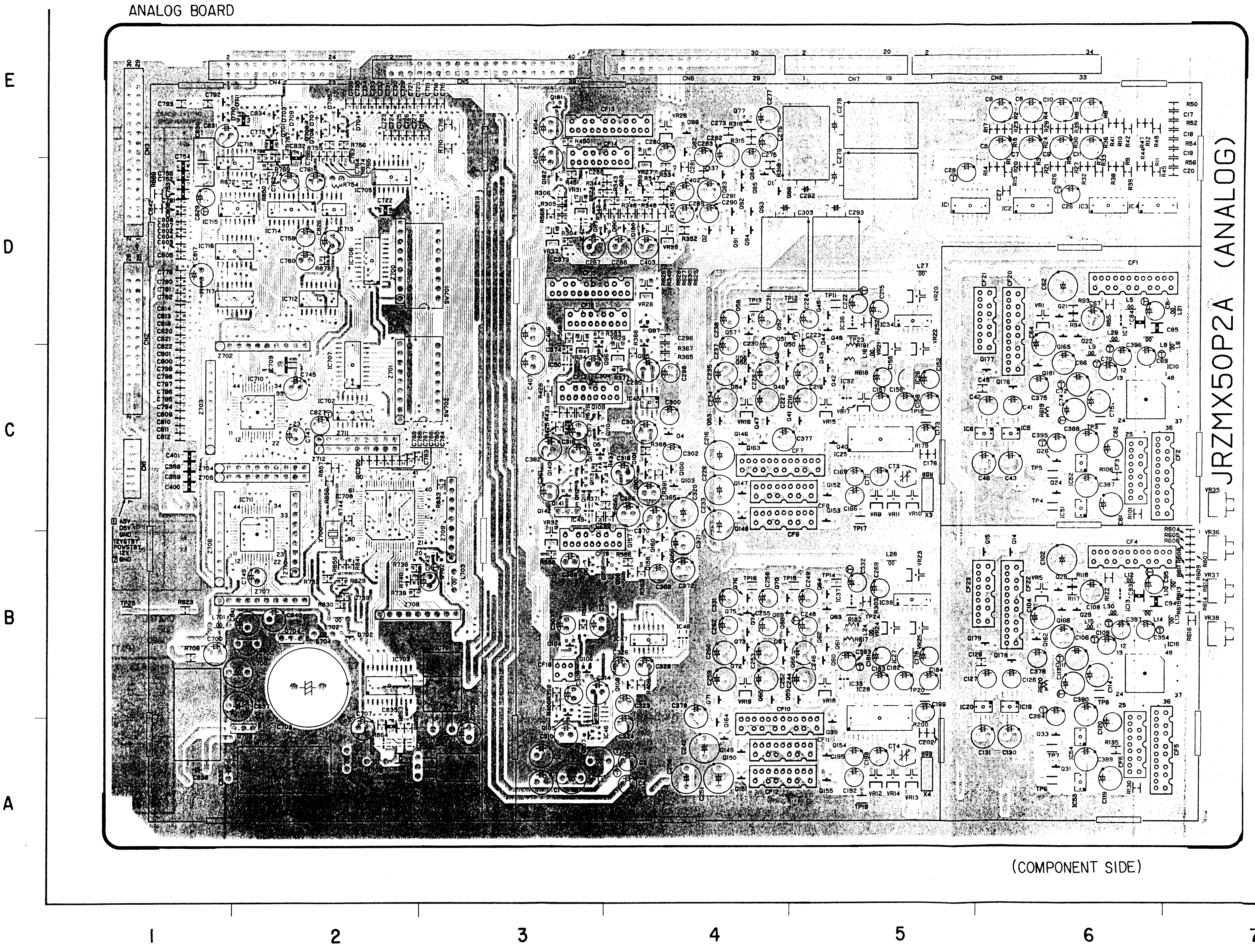
ANALOG BOARD (2/2)

IC700	E3	IC713	E6	D701	E3
IC701	E4	IC714	E6	D702	E3
IC702	E4	IC715	C7	D703	D6
IC703	E3	IC716	B7	D704	E7
IC704	D2	IC717	A7	D705	E7
IC705	C3	IC718	D8	D706	E7
IC706	B2	IC719	D2	D707	E7
IC707	A2	IC720	D2	D708	E7
IC708	C5	Q700	E3	D509	E7
IC709	B3	Q701	D6	D510	E7
IC710	B4	Q703	E2	D711	E7
IC711	A5	Q704	B6	D724	B4
IC712	B5	D700	E3		

CONDUCTOR VIEW OF

<Index>
ANALOG BOARD
(COMPONENT SIDE)

IC1	D5	Q69	B4
IC2	D6	Q70	B4
IC3	D6	Q71	B4
IC4	D6	Q72	B4
IC5	C6	Q73	B4
IC6	C6	Q74	B4
IC7	D6	Q75	B4
IC10	C6	Q76	B4
IC13	B6	Q77	E4
IC16	B6	Q82	E4
IC19	B6	Q83	D4
IC20	B6	Q84	D4
IC25	C5	Q85	D4
IC26	C5	Q86	D4
IC27	B5	Q87	D3
IC28	A5	Q88	D4
IC32	C5	Q89	D4
IC33	B5	Q90	D4
IC34	D5	Q91	D4
IC36	D5	Q92	D4
IC37	B5	Q93	D4
IC38	B5	Q94	D4
IC42	D3	Q95	C4
IC45	C4	Q96	C3
IC46	A3	Q97	D4
IC47	B4	Q98	B4
IC48	B4	Q99	E4
IC49	C3	Q100	C4
IC50	C3	Q101	C4
IC51	C6	Q102	C4
IC52	C6	Q103	C4
IC53	A6	Q104	B3
IC54	A6	Q105	B3
IC700	B2	Q106	B3
IC701	B3	Q107	A3
IC702	C2	Q108	B4
IC703	B2	Q109	C3
IC705	D2	Q110	C3
IC706	D2	Q111	C3
IC707	C2	Q112	C3
IC708	C2	Q113	C3
IC709	C2	Q114	C3
IC710	C2	Q140	C3
IC711	B2	Q141	C3
IC712	D2	Q142	C3
IC713	D2	Q146	C4
IC714	D2	Q147	C4
IC715	D1	Q148	C4
IC716	D1	Q149	A4
IC717	D1	Q150	A4
IC718	D1	Q151	A4
IC719	A2	Q152	C5
IC720	A2	Q153	C5
Q14	B6	Q154	A5
Q15	B6	Q155	A5
Q21	D6	Q156	B3
Q22	D6	Q157	B4
Q24	C6	Q158	B4
Q26	C6	Q159	B4
Q28	B6	Q160	B4
Q29	B6	Q161	C6
Q31	A6	Q162	B6
Q33	A6	Q163	C4
Q39	A5	Q164	A4
Q40	C5	Q165	D6
Q41	C5	Q166	B6
Q42	C5	Q176	C6
Q43	C5	Q177	C6
Q44	C5	Q178	B6
Q45	D5	Q179	B6
Q46	D5	Q180	D4
Q47	C4	Q181	E3
Q48	C4	Q182	D3
Q49	C4	Q700	A3
Q50	C4	Q701	E2
Q51	D4	Q703	A2
Q52	D4	Q704	B2
Q53	C4	D1	D4
Q54	C4	D2	D4
Q55	C4	D4	C4
Q56	C4	D5	C3
Q57	D4	D6	B3
Q58	D4	D702	B2
Q59	B4	D703	E2
Q60	B5	D704	E2
Q61	B5	D705	E2
Q62	B5	D706	E2
Q63	B5	D707	E2
Q64	B5	D708	E2
Q65	B4	D709	E2
Q66	B4	D710	E1
Q67	B4	D711	E1
Q68	B4		

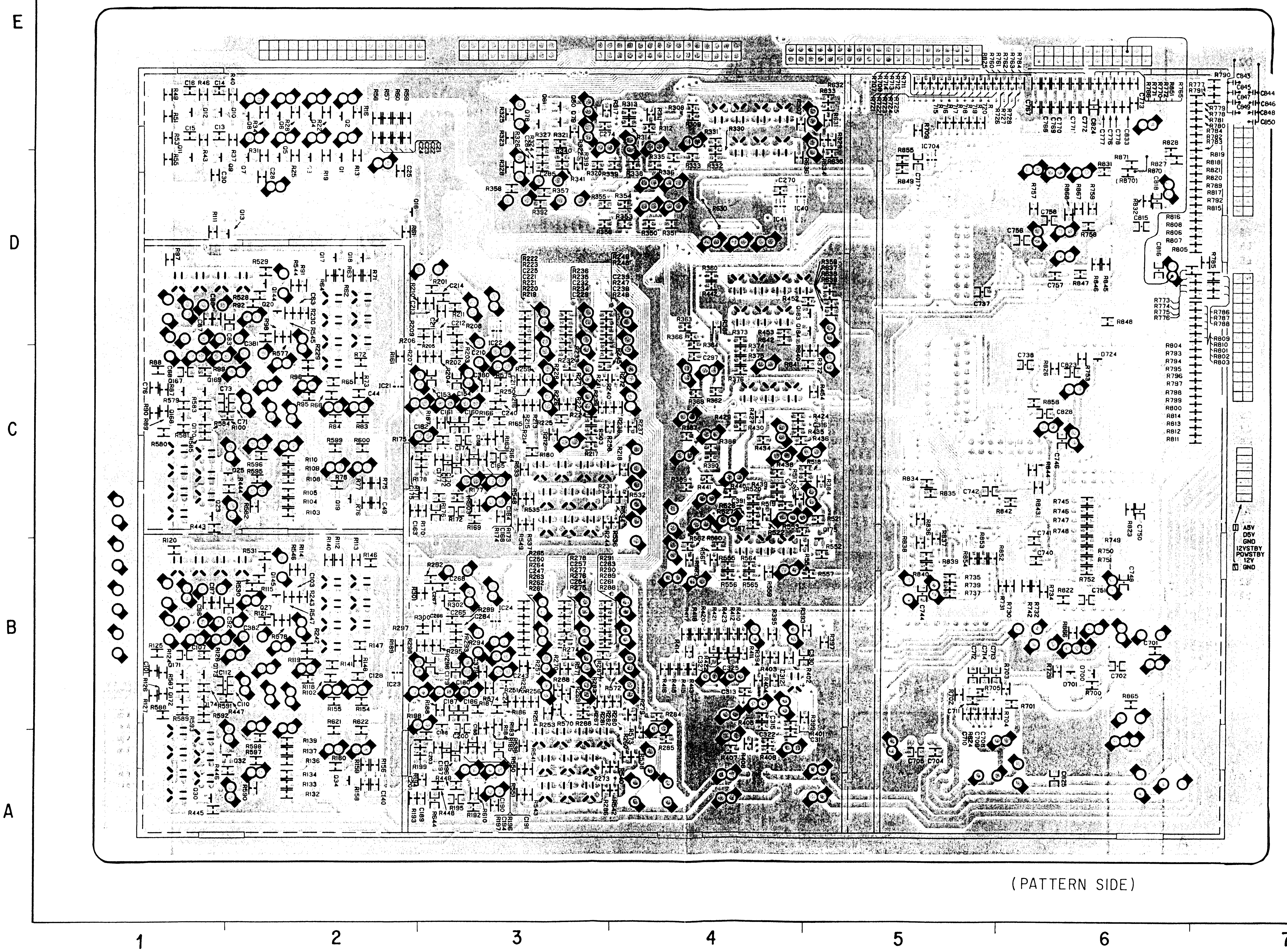


ANALOG BOARD
(COMPONENT SIDE)

*	NTSC
R304	4.3K
R568	4.3K
R569	3.3K
R733	– OPEN –
C783 . C790	– OPEN –

VIEW OF ANALOG BOARD

ANALOG BOARD


E
D
C
B
A
1
2
3
4
5
6
7
IC21
IC22
IC23
IC24
IC40
IC41
IC704
A5V
D5V
GND
12VSTBY
POWSTBY
12V
GND

(PATTERN SIDE)

<Index>
ANALOG BOARD
(PATTERN SIDE)

IC21	C2
IC22	D3
IC23	B2
IC24	B3
IC40	D4
IC41	D4
IC704	D5
Q1	D2
Q2	E2
Q3	D2
Q4	E2
Q5	D2
Q6	E2
Q7	D2
Q8	E2
Q9	D1
Q10	E1
Q11	D1
Q12	E1
Q13	D1
Q16	D2
Q17	D2
Q18	D2
Q19	D2
Q20	D2
Q23	C1
Q25	C1
Q27	B2
Q30	A1
Q32	A1
Q34	A2
Q78	E3
Q79	E3
Q80	E3
Q81	E3
Q144	D2
Q145	B2
Q167	C1
Q168	C1
Q169	C1
Q170	C1
Q171	B1
Q172	B1
Q173	B1
Q174	B1
Q175	C5
Q183	D5
Q184	D5
D700	B6
D701	B6
D724	C6

ANALOG BOARD
(PATTERN SIDE)

*	NTSC	PAL
R89	0	– OPEN –
R90	– OPEN –	0
R104	1.5K	1.3K
R126	0	– OPEN –
R127	– OPEN –	0
R133	1.5K	1.3K
R167	– OPEN –	0
R188	– OPEN –	0
R309	620	750
R552	1K	3.9K
R565	1.2K	1.5K
R734	10K	– OPEN –
C63	100P	56P
C103	100P	56P
C241	270P	100P

ANALOG BOARD
(COMPONENT SIDE)

*	NTSC	PAL
R304	4.3K	3.9K
R568	4.3K	3.9K
R569	3.3K	3.9K
R733	– OPEN –	10K
C783 . C790	– OPEN –	470P

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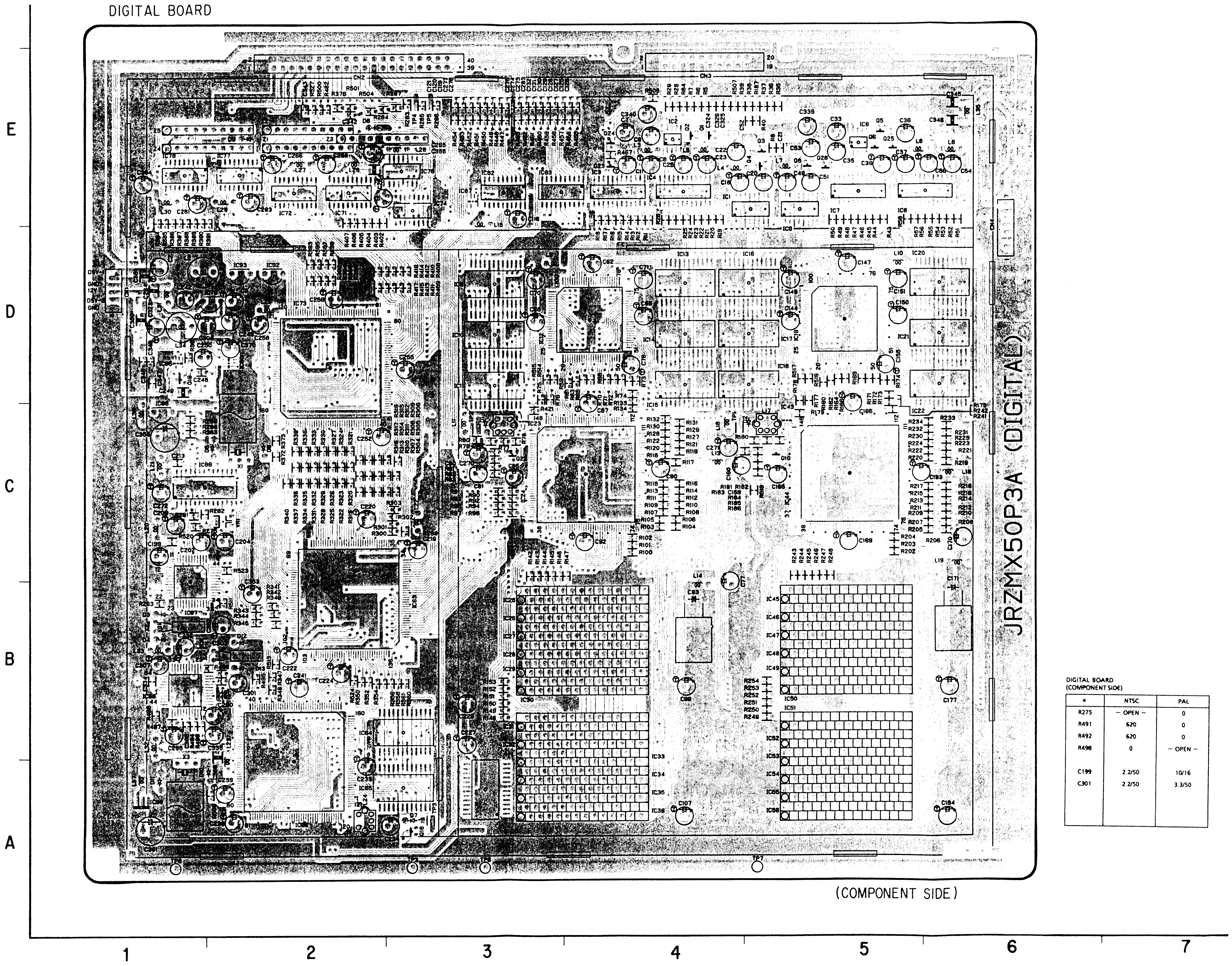
DIGITAL BOARD
(COMPONENT SIDE)

IC1	E5
IC2	E4
IC3	E4
IC4	E4
IC5	E5
IC6	E5
IC7	E5
IC8	E5
IC9	D3
IC10	D3
IC11	D3
IC12	D4
IC13	D4
IC14	D4
IC15	D4
IC16	D5
IC17	D5
IC18	D5
IC19	D5
IC20	D6
IC21	D6
IC22	D6
IC23	C3
IC24	C4
IC25	B4
IC26	B4
IC27	B4
IC28	B4
IC29	B4
IC30	B4
IC31	B4
IC32	B4
IC33	A4
IC34	A4
IC35	A4
IC36	A4
IC43	C5
IC44	C5
IC45	B5
IC46	B5
IC47	B5
IC48	B5
IC49	B5
IC50	B5
IC51	B5
IC52	B5
IC53	A5
IC54	A5
IC55	A5
IC56	A5
IC63	B2
IC64	B3
IC65	A3
IC66	A2
IC67	B1
IC69	C1
IC71	E2
IC72	E2
IC73	D2
IC74	E3
IC76	E3
IC77	E2
IC78	E1
IC79	D2
IC80	D2
IC82	E3
IC83	E3
IC86	D1
IC87	E3
IC88	B1
IC92	D2
IC93	D2
IC95	C1
IC96	A1
Q1	E4
Q2	E4
Q3	E5
Q4	E5
Q5	E5
Q6	E5
Q8	E5
Q10	C5
Q18	A3
Q19	D1
Q22	C3
Q23	E4
Q24	E4
Q25	E5
Q26	E5
D1	C3
D2	C5
D3	B1
D4	B1
D5	C2
D6	C2
D7	A3
D8	E2
D9	E2
D10	A2
D11	A1
D12	B2
D13	B2

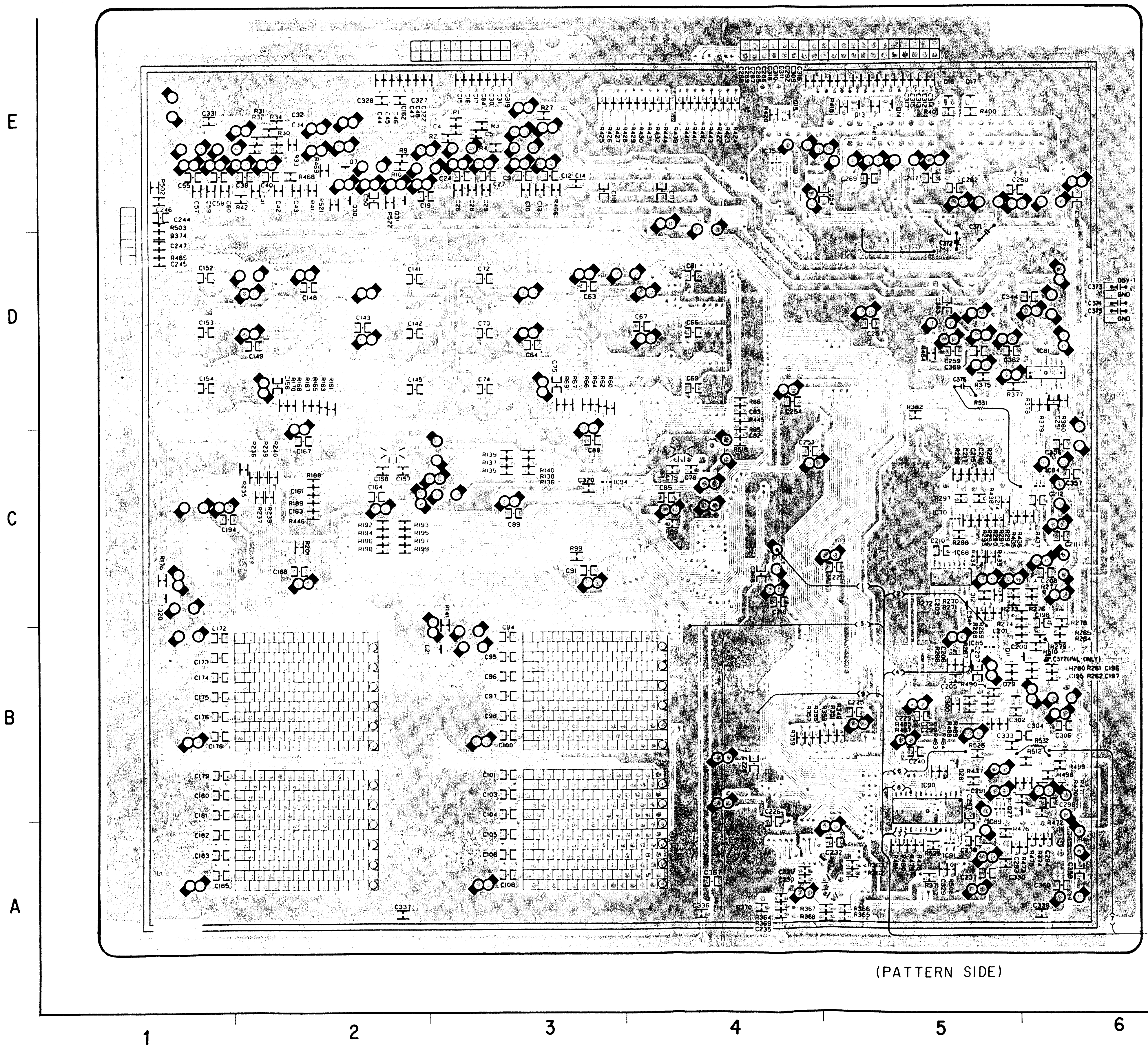


DIGITAL BOARD
(COMPONENT SIDE)

*	NTSC	PAL
R275	– OPEN –	0
R491	620	0
R492	620	0
R498	0	– OPEN –
C199	2.2/50	10/16
C301	2.2/50	3.3/50

V OF DIGITAL BOARD

DIGITAL BOARD



(PATTERN SIDE)

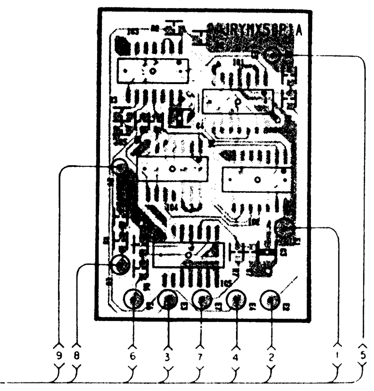
DIGITAL BOARD
(PATTERN SIDE)

*	NTSC	PAL
R99	– OPEN –	0
R201	– OPEN –	0
R264	620	330
R265	620	330
R268	0	– OPEN –
R269	– OPEN –	0
R274	10K	18K
R278	7.5K	1K
R290	0	– OPEN –
R291	0	– OPEN –
R292	0	– OPEN –
R293	0	– OPEN –
R294	– OPEN –	0
R371	– OPEN –	0
R435	– OPEN –	510
R464	– OPEN –	0
R470	7.5K	1K
R478	0	– OPEN –
R479	0	– OPEN –
R481	0	– OPEN –
R499	– OPEN –	0
C216	560P	100P
C217	560P	100P
C333	– OPEN –	39P
C377	– OPEN –	39P

DIGITAL SUB BOARD
(PATTERN SIDE)

*	NTSC	PAL
R4	0	– OPEN –
R5	– OPEN –	0

DIGITAL
SUB
BOARD
(PATTERN SIDE)



PATTERN SIDE
COMPONENT SIDE

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DIGITAL BOARD
(PATTERN SIDE)

IC68	C5
IC70	C5
IC75	E4
IC81	D6
IC84	C6
IC85	B5
IC89	B5
IC90	B5
IC91	A5
IC94	C3
Q7	E2
Q11	B5
Q12	C5
Q13	E5
Q14	E5
Q15	E4
Q16	E5
Q17	E5
Q20	C1
Q21	B3
Q27	B5
Q28	B5
Q29	B5
Q30	E2
Q31	E2

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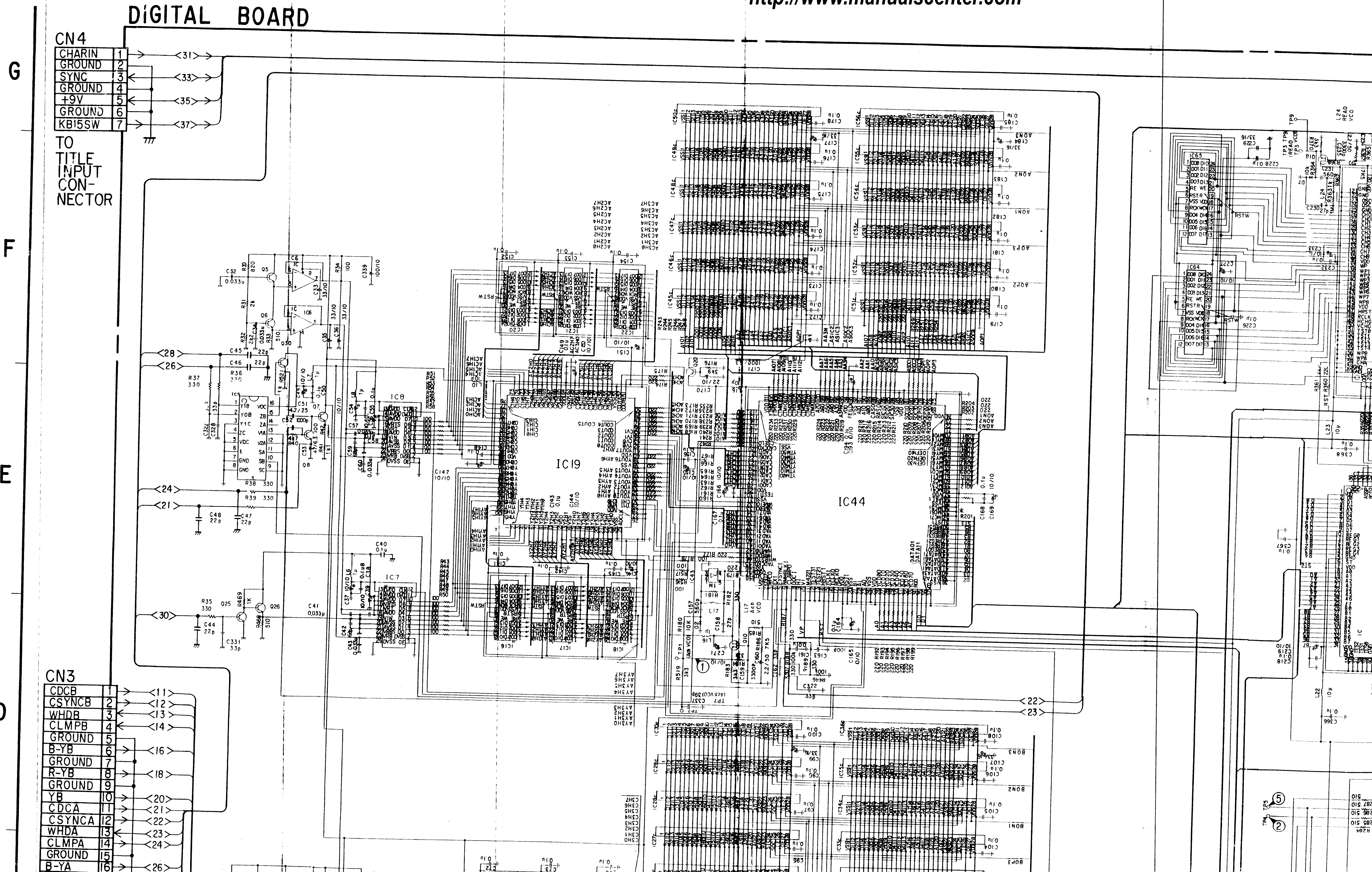
DIGITAL SUB BOARD

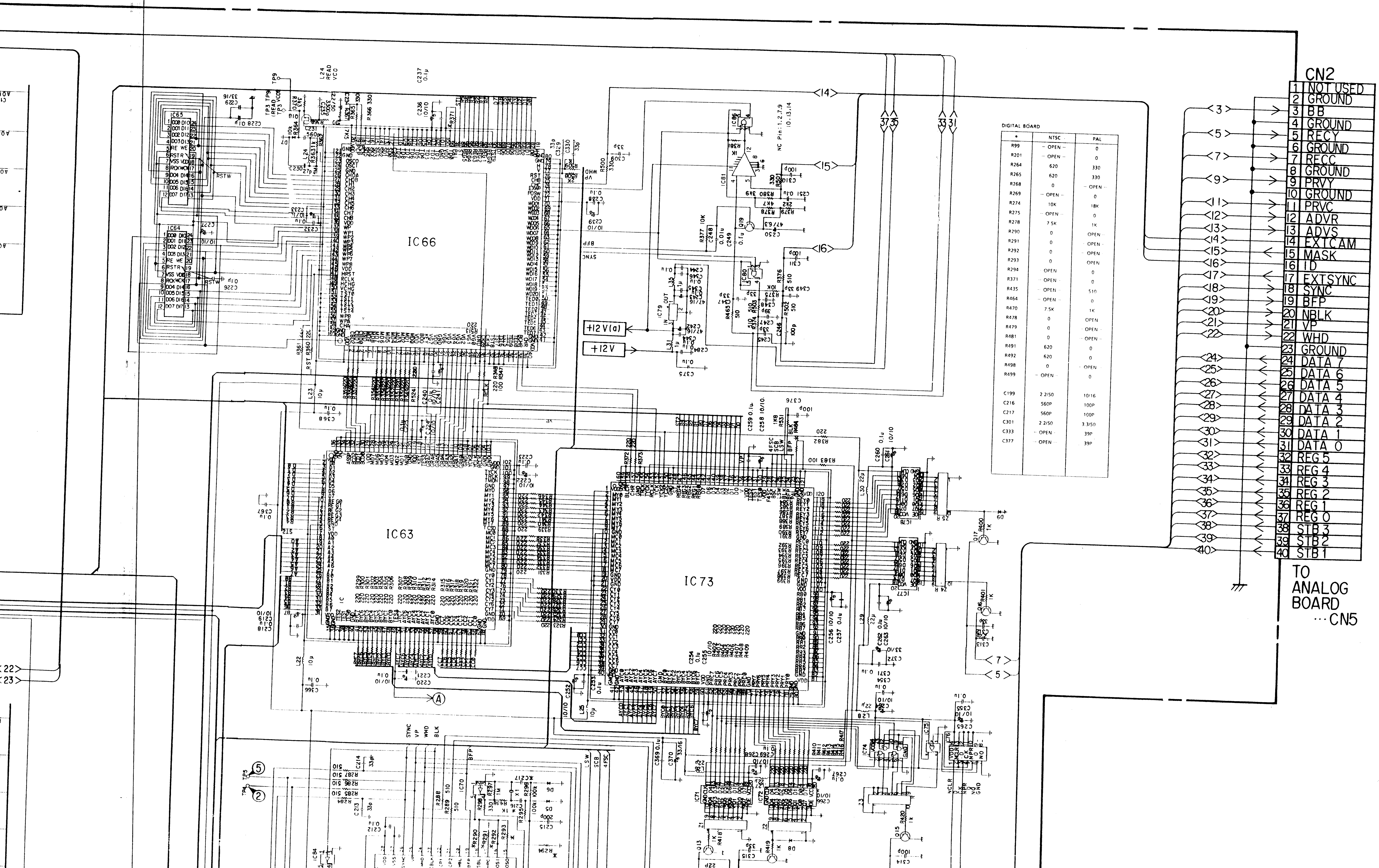
IC1	B7
IC2	B7
IC3	B7
IC4	B7

SCHEMATIC DIAGRAM OF DIGITAL

http://www.manualscenter.com

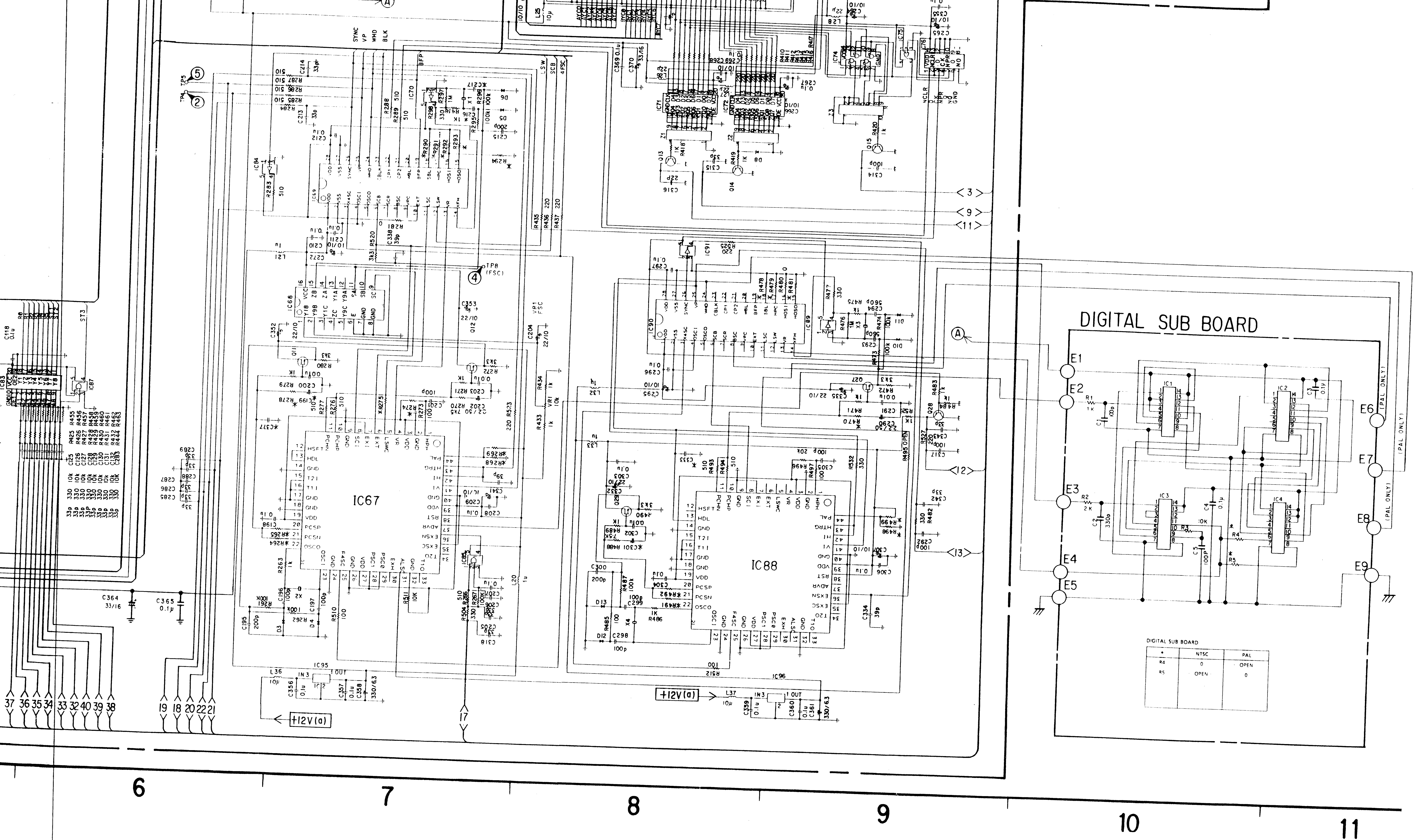

G
F
E
D
DIGITAL BOARD
CN4
CHARIN 1
GROUND 2
SYNC 3
GROUND 4
+9V 5
GROUND 6
KB15SW 7
<31>
<33>
<35>
<37>
TO TITLE INPUT CONNECTOR
CN3
CDCB 1
CSYNCB 2
WHDB 3
CLMPB 4
GROUND 5
B-YB 6
GROUND 7
R-YB 8
GROUND 9
YB 10
CDCA 11
CSYNCA 12
WHDA 13
CLMPA 14
GROUND 15
B-YA 16
<11>
<12>
<13>
<14>
<16>
<18>
<20>
<21>
<22>
<23>
<24>
<26>
<28>
<30>
IC5
IC6
IC7
IC8
IC16
IC17
IC18
IC19
IC20
IC21
IC22
IC44
IC45
IC46
IC47
IC48
IC49
IC50
IC51
IC52
IC53
IC54
IC55
IC56
IC64
IC65
Q5
Q6
Q7
Q8
Q10
Q20
Q25
Q26
TP1
TP3
TP7
TP9
L17
L22
L23
L24
READ VCO
RSTW
①
②
⑤

EMATIC DIAGRAM OF DIGITAL BOARD


CN2
1 NOT USED
2 GROUND
3 BB
4 GROUND
5 RECY
6 GROUND
7 RECC
8 GROUND
9 PRVY
10 GROUND
11 PRVC
12 ADVR
13 ADVS
14 EXTCAM
15 MASK
16 ID
17 EXTSYNC
18 SYNC
19 BFP
20 NBLK
21 VP
22 WHD
23 GROUND
24 DATA 7
25 DATA 6
26 DATA 5
27 DATA 4
28 DATA 3
29 DATA 2
30 DATA 1
31 DATA 0
32 REG 5
33 REG 4
34 REG 3
35 REG 2
36 REG 1
37 REG 0
38 STB 3
39 STB 2
40 STB 1
TO ANALOG BOARD ...CN5
IC65
IC64
IC66
IC63
IC73
IC79
IC80
IC81
IC86
IC70
IC71
IC72
IC74
IC75
IC76
IC77
IC78
IC84
+12V(a)
+12V
TP9
TP3
TP4
TP5
L24 READ VCO
NC Pin:1,2,7,9 10,13,14

DIGITAL BOARD

*	NTSC	PAL
R99	– OPEN –	0
R201	– OPEN –	0
R264	620	330
R265	620	330
R268	0	– OPEN –
R269	– OPEN –	0
R274	10K	18K
R275	– OPEN –	0
R278	7.5K	1K
R290	0	OPEN
R291	0	– OPEN –
R292	0	– OPEN –
R293	0	OPEN
R294	OPEN	0
R371	– OPEN –	0
R435	– OPEN –	510
R464	– OPEN –	0
R470	7.5K	1K
R478	0	OPEN
R479	0	– OPEN –
R481	0	– OPEN –
R491	620	0
R492	620	0
R498	0	– OPEN –
R499	– OPEN –	0
C199	2.2/50	10/16
C216	560P	100P
C217	560P	100P
C301	2.2/50	3.3/50
C333	– OPEN –	39P
C377	– OPEN –	39P


DIGITAL SUB BOARD
IC67
IC88
IC66
IC69
IC71
IC72
IC89
IC90
IC91
IC95
IC96
IC1
IC2
IC3
IC4
E1
E2
E3
E4
E5
E6
E7
E8
E9
(PAL ONLY)
+12V(a)
TP8 (FSC)
DIGITAL SUB BOARD
*
NTSC
PAL
R4
0
OPEN
R5
OPEN
0
37 36 35 34 33 32 40 39 38
19 18 20 22 21
17
6
7
8
9
10
11

D1	B4
D2	D4
D3	B7
D4	B7
D5	D7
D6	D7
D7	G6
D8	C8
D9	E9
D10	C9
D11	C9
D12	A8
D13	B8

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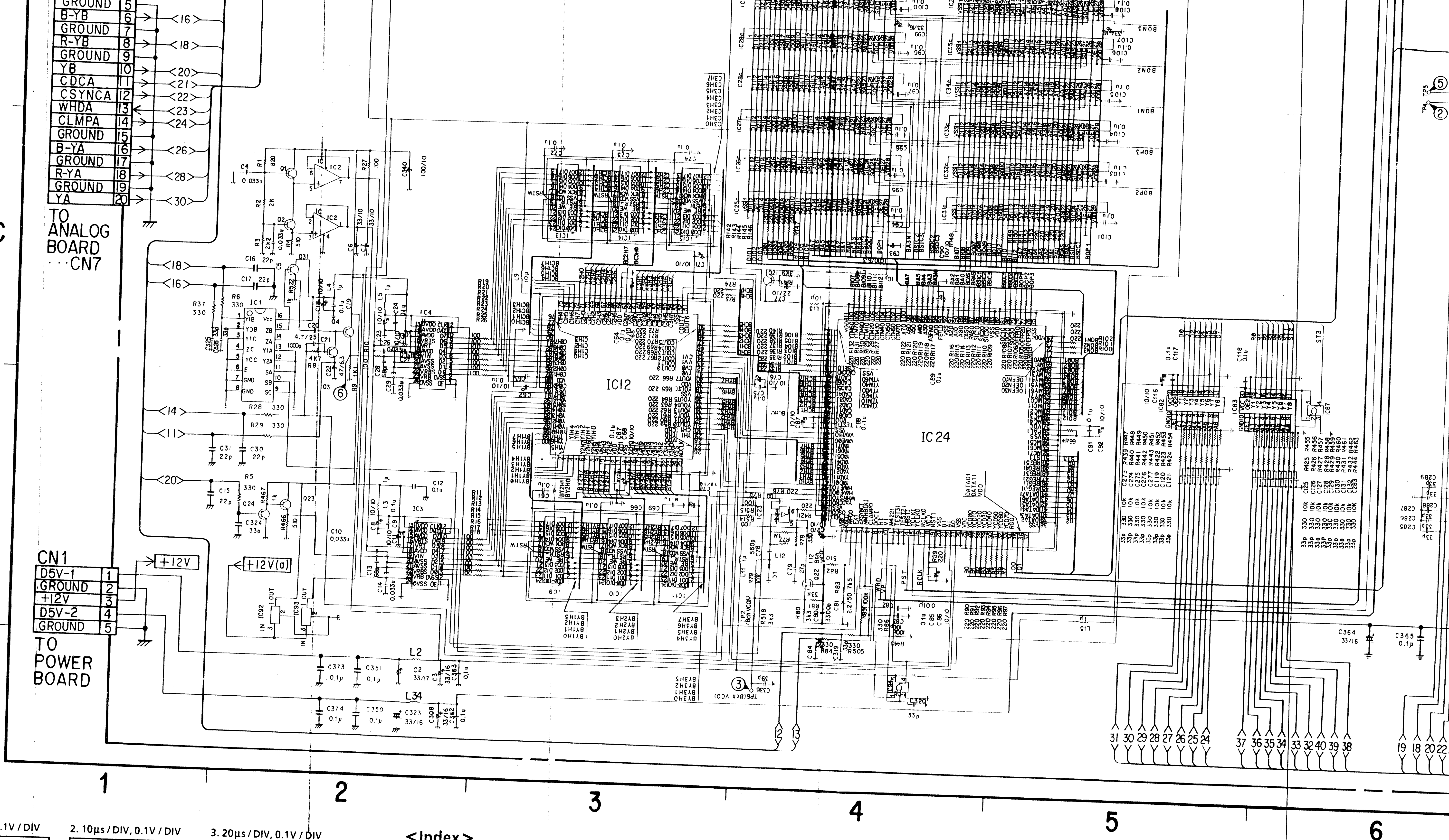
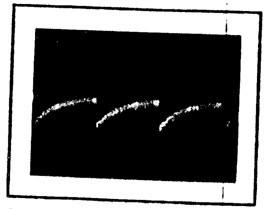
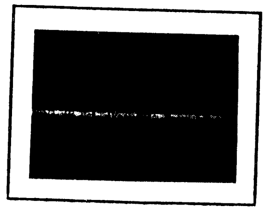

GROUND 5
B-YB 6 <16>
GROUND 7
R-YB 8 <18>
GROUND 9
YB 10 <20>
CDCA 11 <21>
CSYNCA 12 <22>
WHDA 13 <23>
CLMPA 14 <24>
GROUND 15
B-YA 16 <26>
GROUND 17
R-YA 18 <28>
GROUND 19
YA 20 <30>
TO ANALOG BOARD ···CN7
CN1
D5V-1 1
GROUND 2
+12V 3
D5V-2 4
GROUND 5
TO POWER BOARD
+12V
+12V(a)
IC1
IC2
IC3
IC4
IC12
IC24
IC92
IC93
L2
L34
C
B
A
1
2
3
4
5
6

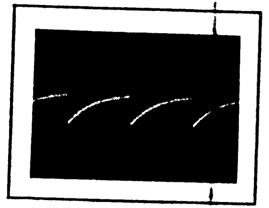
1. 20µs / DIV, 0.1V / DIV



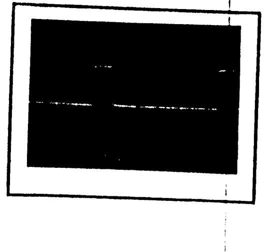
2. 10µs / DIV, 0.1V / DIV



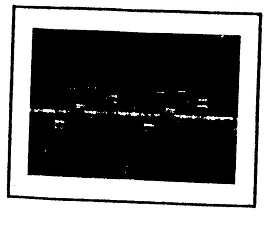
3. 20µs / DIV, 0.1V / DIV



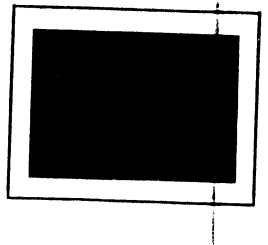
5. 10µs / DIV, 2V / DIV



6. 10µs / DIV, 0.5V / DIV



4. 10µs / DIV, 0.2V / DIV

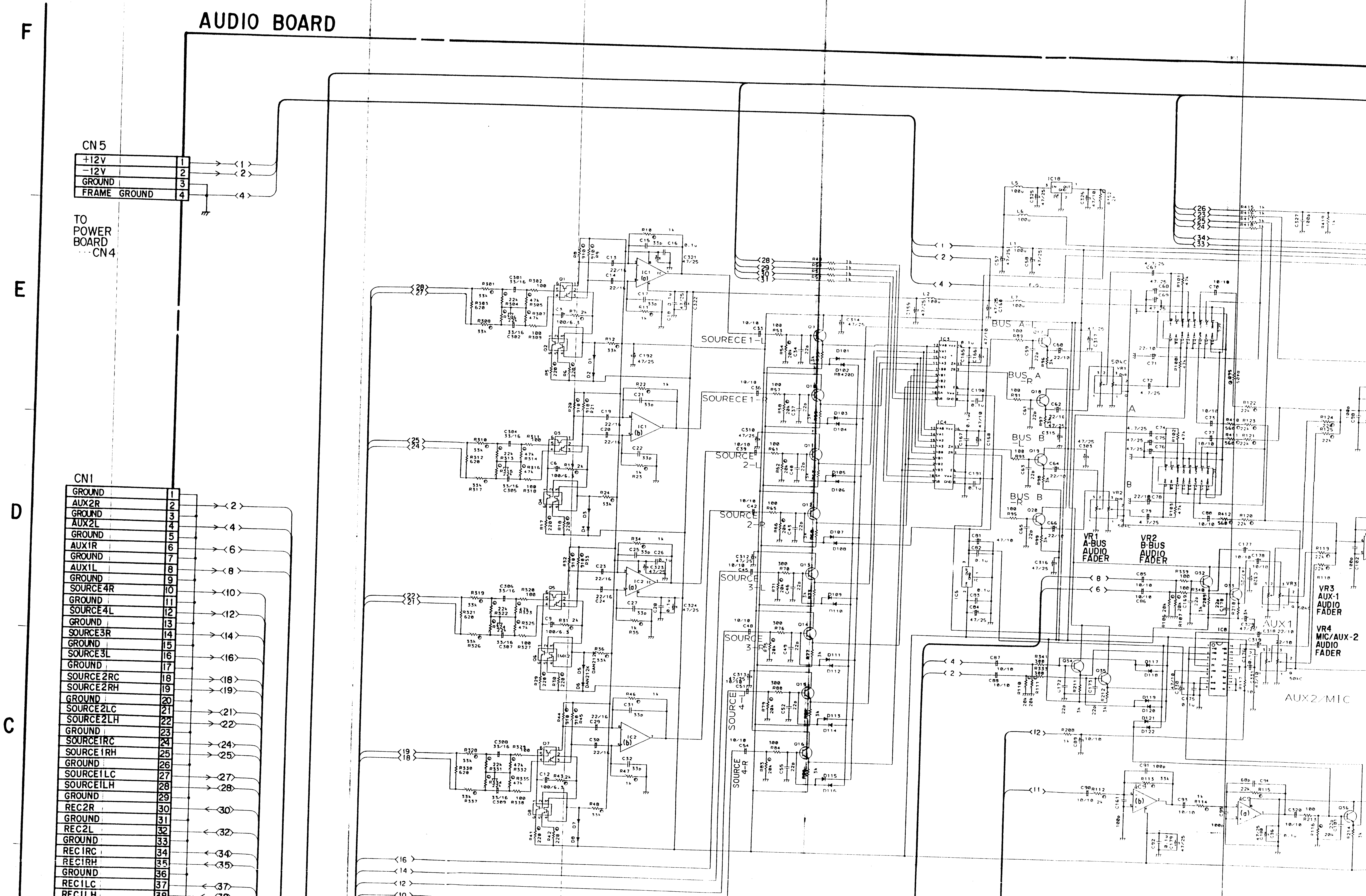


<Index>

DIGITAL BOARD

IC1	C2
IC2	C2
IC3	B2
IC4	C2
IC5	E2
IC6	F2
IC7	D2
IC8	E2
IC9	B3
IC10	B3
IC11	B3
IC12	B3
IC13	C3
IC14	C3
IC15	C3
IC16	D3
IC17	D3
IC18	D3
IC19	E3
IC20	F3
IC21	F3
IC22	F3
IC23	B4
IC24	B4
IC25	C4
IC26	C4
IC27	D4
IC28	D4
IC29	D4
IC30	D4
IC31	C5
IC32	C5
IC33	D5
IC34	D5
IC35	D5
IC36	D5
IC43	E4
IC44	E4
IC45	F4
IC46	F4
IC47	F4
IC48	F4
IC49	G4
IC50	G4
IC51	F5
IC52	F5
IC53	F5
IC54	F5
IC55	G5
IC56	G5
IC63	E7
IC64	F6
IC65	F6
IC66	F7
IC67	B7
IC68	C7
IC69	D7
IC70	D7
IC71	D8
IC72	D8
IC73	D8
IC74	D9
IC75	D9
IC76	D9
IC77	E9
IC78	E9
IC79	F8
IC80	F8
IC81	F8
IC82	B5
IC83	B6
IC84	C6
IC85	B7
IC86	G8
IC87	B6
IC88	B8
IC89	C9
IC90	C8
IC91	C8
IC92	B2
IC93	B2
IC94	A4
IC95	A7
IC96	A9
Q1	C2
Q2	C2
Q3	C2
Q4	C2
Q5	F2
Q6	F2
Q7	E2
Q8	E2
Q10	D4
Q11	C7
Q12	C7
Q13	C8
Q14	C8
Q15	C9
Q16	D9
Q17	E9
Q18	G6
Q19	F8
Q20	F4
Q21	C4
Q22	B4
Q23	B2
Q24	B2
Q25	D2
Q26	D2
Q27	C9
Q28	B9
Q29	B8
Q30	F2
Q31	C2
D1	B4
D2	D4
D3	B7
D4	B7
D5	D7
D6	D7
D7	G6
D8	C8
D9	E9
D10	C9
D11	C9
D12	A8
D13	B8

SCHEMATIC DIAGRAM OF


F
E
D
C
AUDIO BOARD
CN5
+12V
−12V
GROUND
FRAME GROUND
TO POWER BOARD ···CN4
CN1
GROUND
AUX2R
GROUND
AUX2L
GROUND
AUX1R
GROUND
AUX1L
GROUND
SOURCE4R
GROUND
SOURCE4L
GROUND
SOURCE3R
GROUND
SOURCE3L
GROUND
SOURCE2RC
SOURCE2RH
GROUND
SOURCE2LC
SOURCE2LH
GROUND
SOURCE1RC
SOURCE1RH
GROUND
SOURCE1LC
SOURCE1LH
GROUND
REC2R
GROUND
REC2L
GROUND
REC1RC
REC1RH
GROUND
REC1LC
REC1LH
IC1 (a)
IC1 (b)
IC2 (a)
IC2 (b)
IC3
IC4
IC5
IC8
IC9 (a)
IC9 (b)
IC18
SOURECE1−L
SOURECE1−R
SOURCE 2−L
SOURCE 2−R
SOURCE 3−L
SOURCE 3−R
SOURCE 4−L
SOURCE 4−R
BUS A L
BUS A R
BUS B L
BUS B R
A
B
VR1 A-BUS AUDIO FADER
VR2 B-BUS AUDIO FADER
VR3 AUX-1 AUDIO FADER
VR4 MIC/AUX-2 AUDIO FADER
AUX1
AUX2/MIC
D102 RB420D
D5 DAN212K

MATIC DIAGRAM OF AUDIO BOARD

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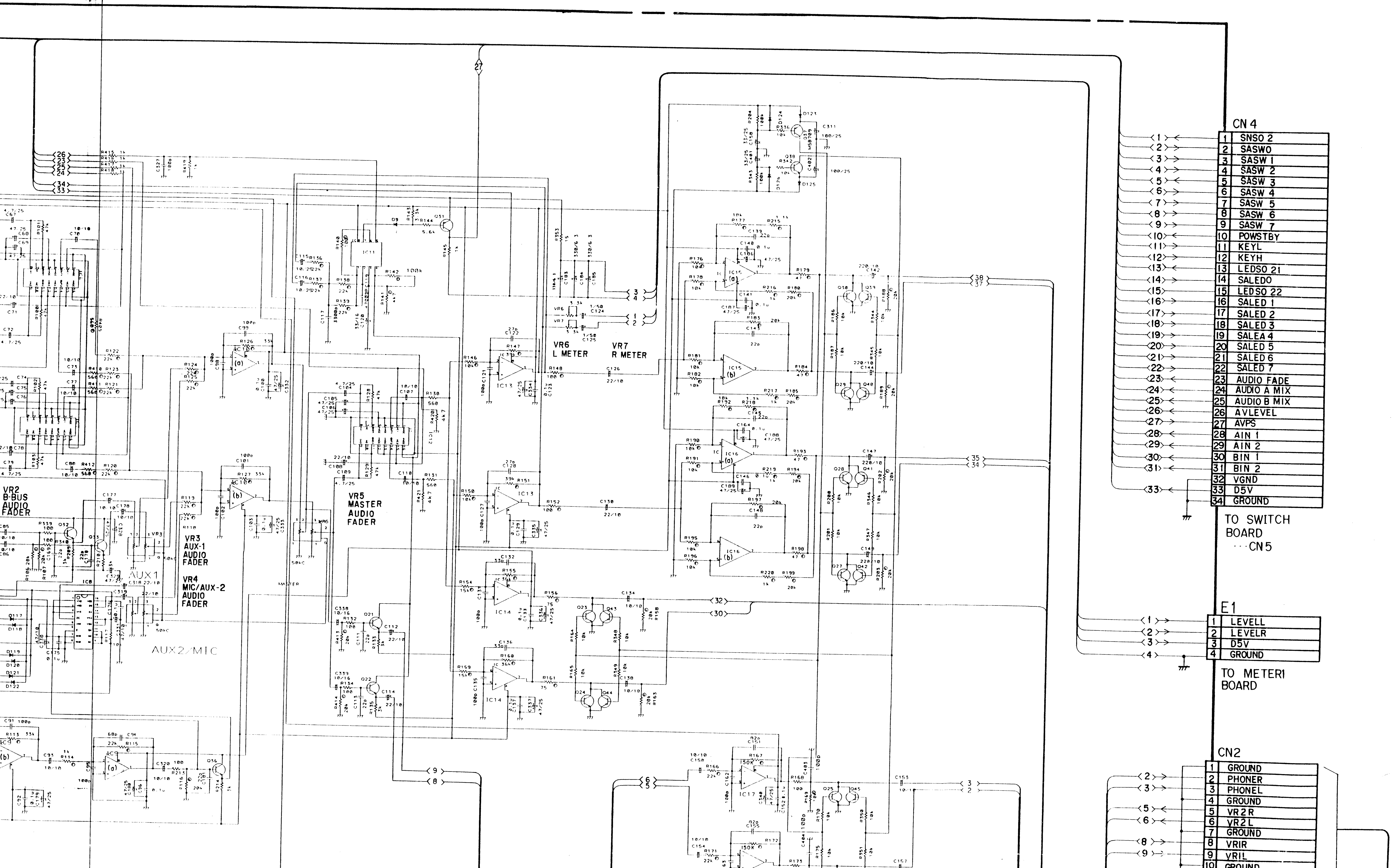
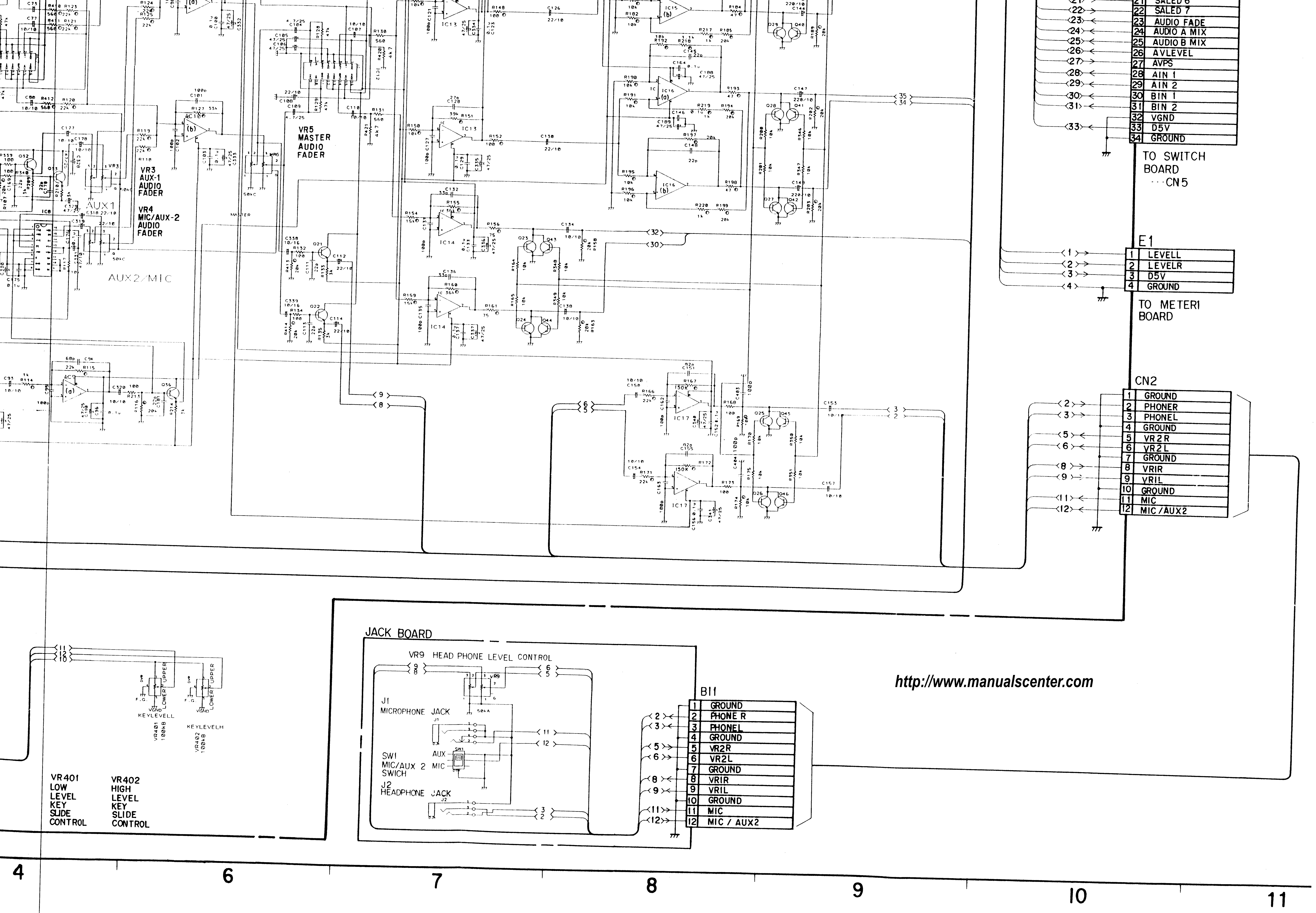
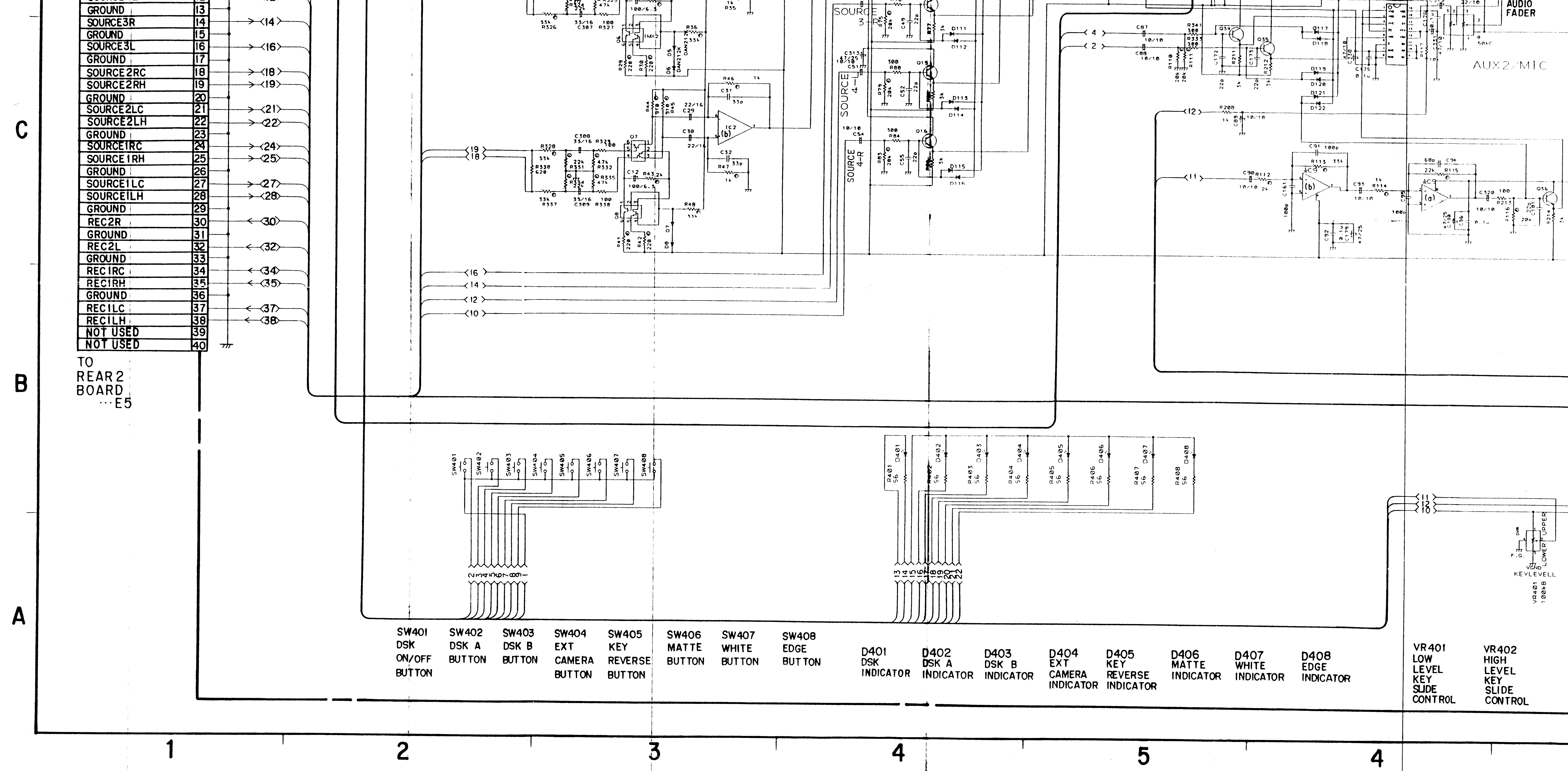

CN4
1 SNSO 2
2 SASWO
3 SASW 1
4 SASW 2
5 SASW 3
6 SASW 4
7 SASW 5
8 SASW 6
9 SASW 7
10 POWSTBY
11 KEYL
12 KEYH
13 LEDSO 21
14 SALEDO
15 LEDSO 22
16 SALED 1
17 SALED 2
18 SALED 3
19 SALEA 4
20 SALED 5
21 SALED 6
22 SALED 7
23 AUDIO FADE
24 AUDIO A MIX
25 AUDIO B MIX
26 AVLEVEL
27 AVPS
28 AIN 1
29 AIN 2
30 BIN 1
31 BIN 2
32 VGND
33 D5V
34 GROUND
TO SWITCH BOARD ···CN5
E1
1 LEVELL
2 LEVELR
3 D5V
4 GROUND
TO METER1 BOARD
CN2
1 GROUND
2 PHONER
3 PHONEL
4 GROUND
5 VR2R
6 VR2L
7 GROUND
8 VRIR
9 VRIL
10 GROUND
VR2 B-BUS AUDIO FADER
VR3 AUX-1 AUDIO FADER
VR4 MIC/AUX-2 AUDIO FADER
VR5 MASTER AUDIO FADER
VR6 L METER
VR7 R METER
AUX1
AUX2/MIC
MASTER
IC11
IC12
IC13
IC14
IC15
IC16
IC17
Q21
Q22
Q23
Q24
Q25
Q27
Q28
Q29
Q30
Q31
Q36
Q39
Q40
Q41
Q42
Q43
Q44
Q45
D9
D121
D124
D125


21 SALED 6
22 SALED 7
23 AUDIO FADE
24 AUDIO A MIX
25 AUDIO B MIX
26 AVLEVEL
27 AVPS
28 AIN 1
29 AIN 2
30 BIN 1
31 BIN 2
32 VGND
33 D5V
34 GROUND
TO SWITCH BOARD ···CN5
E1
1 LEVELL
2 LEVELR
3 D5V
4 GROUND
TO METER1 BOARD
CN2
1 GROUND
2 PHONER
3 PHONEL
4 GROUND
5 VR2R
6 VR2L
7 GROUND
8 VR1R
9 VR1L
10 GROUND
11 MIC
12 MIC/AUX2
VR3 AUX-1 AUDIO FADER
VR4 MIC/AUX-2 AUDIO FADER
VR5 MASTER AUDIO FADER
AUX1
AUX2/MIC
MASTER
IC8
IC9
IC10
IC12
IC13
IC14
IC15
IC16
IC17
Q21
Q22
Q23
Q24
Q25
Q26
Q27
Q28
Q29
Q32
Q33
Q36
Q40
Q41
Q42
Q43
Q44
Q45
Q46
JACK BOARD
VR9 HEAD PHONE LEVEL CONTROL
J1 MICROPHONE JACK
SW1 MIC/AUX 2 SWICH
AUX
MIC
J2 HEADPHONE JACK
50kA
B11
1 GROUND
2 PHONE R
3 PHONEL
4 GROUND
5 VR2R
6 VR2L
7 GROUND
8 VR1R
9 VR1L
10 GROUND
11 MIC
12 MIC / AUX2
KEYLEVELL
KEYLEVELH
VR401 100kB
VR402 100kB
UPPER
LOWER
VGND
F.G.
VR401 LOW LEVEL KEY SLIDE CONTROL
VR402 HIGH LEVEL KEY SLIDE CONTROL
4
6
7
8
9
10
11


GROUND 13
SOURCE3R 14
GROUND 15
SOURCE3L 16
GROUND 17
SOURCE2RC 18
SOURCE2RH 19
GROUND 20
SOURCE2LC 21
SOURCE2LH 22
GROUND 23
SOURCE1RC 24
SOURCE1RH 25
GROUND 26
SOURCE1LC 27
SOURCE1LH 28
GROUND 29
REC2R 30
GROUND 31
REC2L 32
GROUND 33
REC1RC 34
REC1RH 35
GROUND 36
REC1LC 37
REC1LH 38
NOT USED 39
NOT USED 40
TO REAR2 BOARD ···E5
SOURCE 3
SOURCE 4-L
SOURCE 4-R
AUDIO FADER
AUX2/MIC
IC2 (b)
IC9 (b)
IC9 (a)
KEYLEVELL
VR401 100kB
SW401 DSK ON/OFF BUTTON
SW402 DSK A BUTTON
SW403 DSK B BUTTON
SW404 EXT CAMERA BUTTON
SW405 KEY REVERSE BUTTON
SW406 MATTE BUTTON
SW407 WHITE BUTTON
SW408 EDGE BUTTON
D401 DSK INDICATOR
D402 DSK A INDICATOR
D403 DSK B INDICATOR
D404 EXT CAMERA INDICATOR
D405 KEY REVERSE INDICATOR
D406 MATTE INDICATOR
D407 WHITE INDICATOR
D408 EDGE INDICATOR
VR401 LOW LEVEL KEY SLIDE CONTROL
VR402 HIGH LEVEL KEY SLIDE CONTROL
C
B
A
1
2
3
4
5
4

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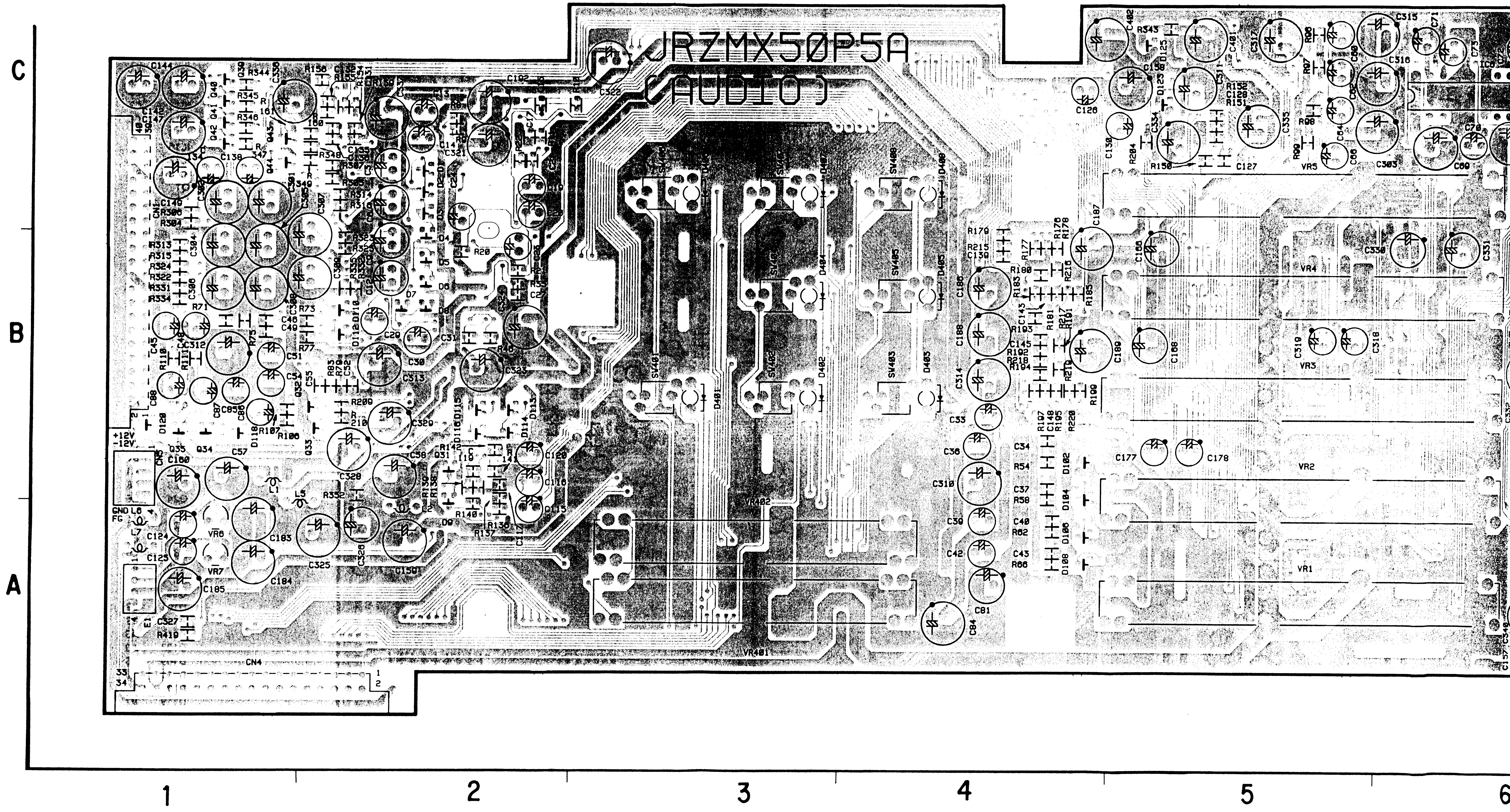
AUDIO BOARD

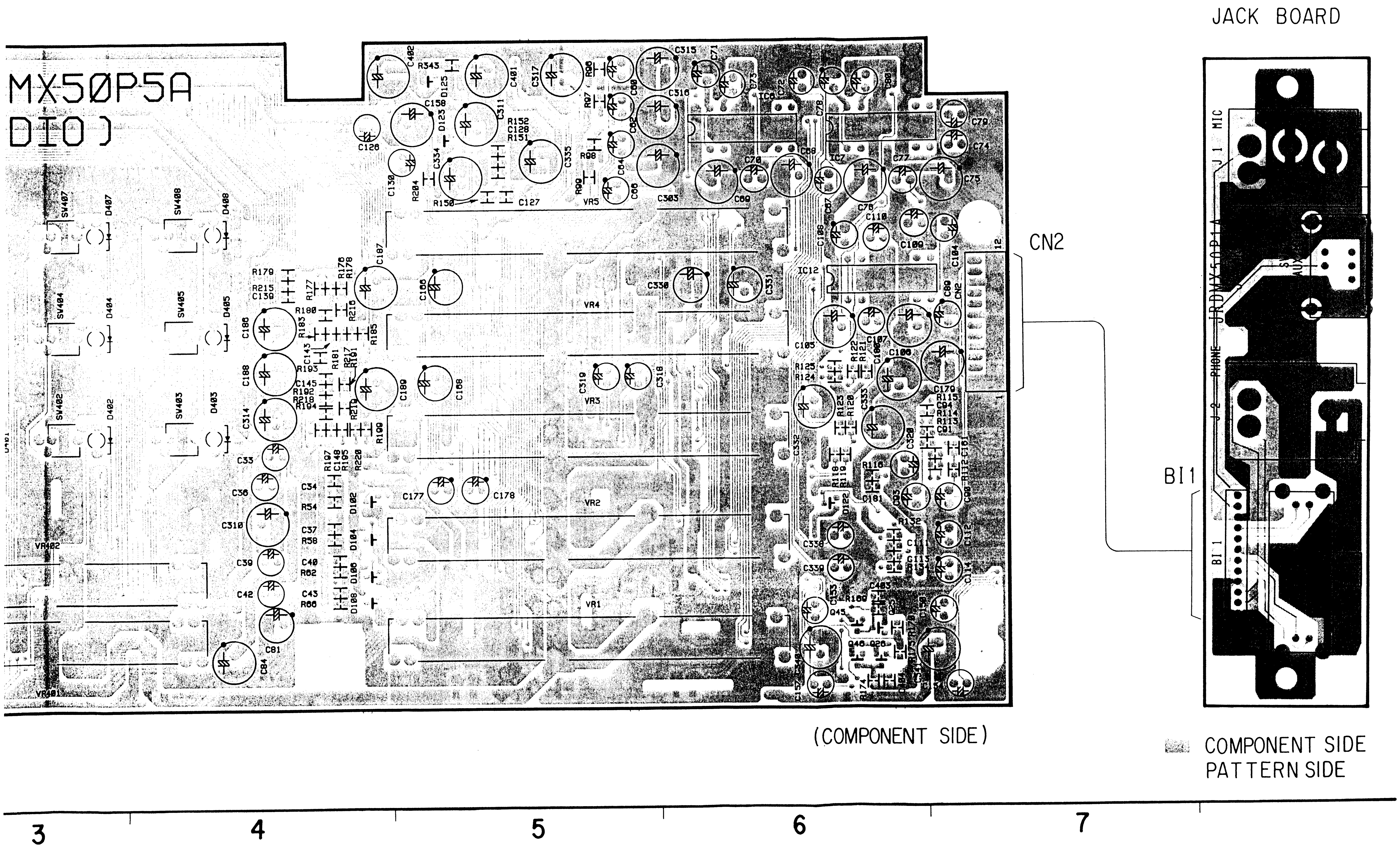
IC1	E3,D3	Q1	E3	Q19	D5	Q37	F9	D1	E3	D110	D4	D402	A4
IC2	C3,D3	Q2	E3	Q20	D5	Q38	E9	D2	E3	D111	C4	D403	A4
IC3	E5	Q3	D3	Q21	C7	Q39	E9	D3	D3	D112	C4	D404	A5
IC4	D5	Q4	D3	Q22	C7	Q40	D9	D4	D3	D113	C4	D405	A5
IC5	D5	Q5	D3	Q23	C8	Q41	D9	D5	C3	D114	C4	D406	A5
IC6	E6	Q6	C3	Q24	C8	Q42	D9	D6	C3	D115	C4	D407	A5
IC7	D6	Q7	C3	Q25	C9	Q43	C8	D7	B3	D116	C4	D408	A5
IC8	C6	Q8	C3	Q26	B9	Q44	C8	D8	B3	D117	C6		
IC9	C6	Q9	E4	Q27	D9	Q45	C9	D9	E7	D118	C6		
IC10	D7	Q10	E4	Q28	D9	Q46	B9	D101	E4	D119	C6		
IC11	E7	Q11	D4	Q29	D9			D102	E4	D120	C6		
IC12	D7	Q12	D4	Q30	E9			D103	D4	D121	C6		
IC13	D8	Q13	D4	Q31	E8			D104	D4	D122	C6		
IC14	C8	Q14	C4	Q32	D6			D105	D4	D123	F9		
IC15	E9	Q15	C4	Q33	D6			D106	D4	D124	F9		
IC16	D9	Q16	C4	Q34	C5			D107	D4	D125	E9		
IC17	B9,C9	Q17	E5	Q35	C5			D108	D4	D126	E9		
IC18	E5	Q18	E5	Q36	C7			D109	D4	D401	A4		

CONDUCTOR VIEW OF AUDIO BOARD

AUDIO BOARD


JRZMX50P5A
(AUDIO)
C
B
A
1
2
3
4
5
CN4
VR1
VR2
VR3
VR4
VR5
VR6
VR7
VR401
VR402
SW401
SW402
SW403
SW404
SW405
SW406
+12V
-12V
GND
FG

CONDUCTOR VIEW OF AUDIO BOARD


MX50P5A
D10)
JACK BOARD
CN2
BI1
J1 MIC
J2 PHONE
AUX
(COMPONENT SIDE)
COMPONENT SIDE
PATTERN SIDE
IC6
IC7
IC12
VR1
VR2
VR3
VR4
VR5
VR401
VR402
SW402
SW403
SW404
SW405
SW407
SW408
D402
D403
D404
D405
D407
D408
C402
R343
C401
C317
C315
C316
C158
D123
D125
C311
R152
C128
R151
C126
C334
C335
C130
R204
R150
C127
C303
C69
C70
C68
C77
C75
C74
C79
C76
C110
C109
C104
C330
C331
C105
C107
C106
C170
R125
R124
R123
R120
R122
R121
C333
C320
R116
R118
R119
C181
R132
C336
C339
C333
Q45
R160
C403
Q46
Q26
C314
C186
C188
C187
C189
C166
C168
C319
C318
C177
C178
C33
C36
C310
C39
C42
C81
C84
C34
R54
C37
R58
C40
R62
C43
R66
D102
D104
D106
D108
R179
R215
C139
R177
R176
R178
R180
R183
R185
R181
R217
R161
R193
C145
R192
R218
R194
R219
R190
R197
C148
R195
R220
3
4
5
6
7

<Index>

AUDIO BOARD
(COMPONENT SIDE)

IC6	C6
IC7	C6
IC12	B6
Q25	A6
Q26	A6
Q31	B2
Q32	B2
Q33	B2
Q34	B1
Q35	B1
Q39	C1
Q40	C1
Q41	C1
Q42	C1
Q43	C1
Q44	C1
Q45	A6
Q46	A6
D1	C2
D2	C2
D3	C3
D4	B2
D5	B2
D6	B2
D7	B2
D8	B2
D9	A2
D102	B4
D104	B4
D106	A4
D108	A4
D110	B2
D112	B2
D113	B2
D114	B2
D115	B2
D116	B2
D118	B2
D118	B1
D120	B1
D122	B6
D123	C5
D125	C5
D401	B3
D402	B3
D403	B4
D404	B3
D405	B4
D406	C3
D407	C3
D408	C4

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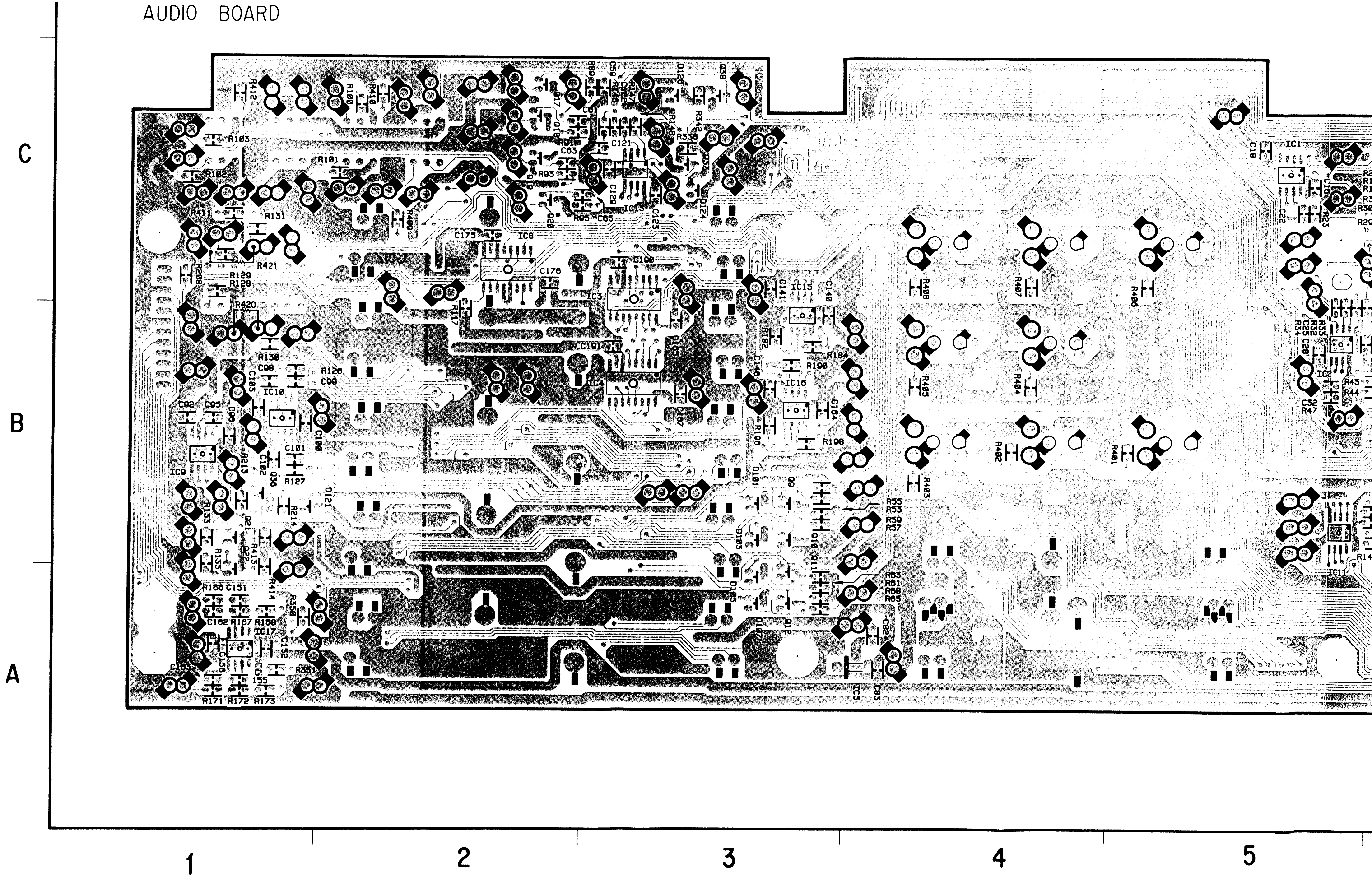
CONDUCTOR VIEW OF AUDIO BOARD


AUDIO BOARD
C
B
A
1
2
3
4
5
R412
R100
R410
R89
C59
R130
D120
Q38
R103
R101
R102
R411
R131
R400
R421
R208
R129
R128
R420
R130
C98
C99
R126
C103
IC10
C92
C95
C100
C101
C102
R127
Q30
IC9
R213
R214
D121
R133
Q21
Q22
R135
R413
R166
C151
R414
R350
C162
R167
R168
IC17
C152
C156
C165
R351
R171
R172
R173
C175
IC8
C176
R117
C81
R93
C83
C121
IC13
C120
C123
D124
R85
C85
Q20
R342
R148
R330
C190
IC3
IC15
C141
C140
R182
C191
IC4
D105
D107
C146
IC16
R184
R190
C104
R196
R198
D101
Q9
D103
Q10
Q11
D105
D107
Q12
R55
R53
R59
R57
R63
R61
R60
R65
C82
IC5
C83
R408
R407
R406
R405
R404
R403
R402
R401
C18
IC1
C22
R23
R34
C25
C28
R33
R32
IC2
R45
R44
C32
R47
IC11
R14

CONDUCTOR VIEW OF AUDIO BOARD

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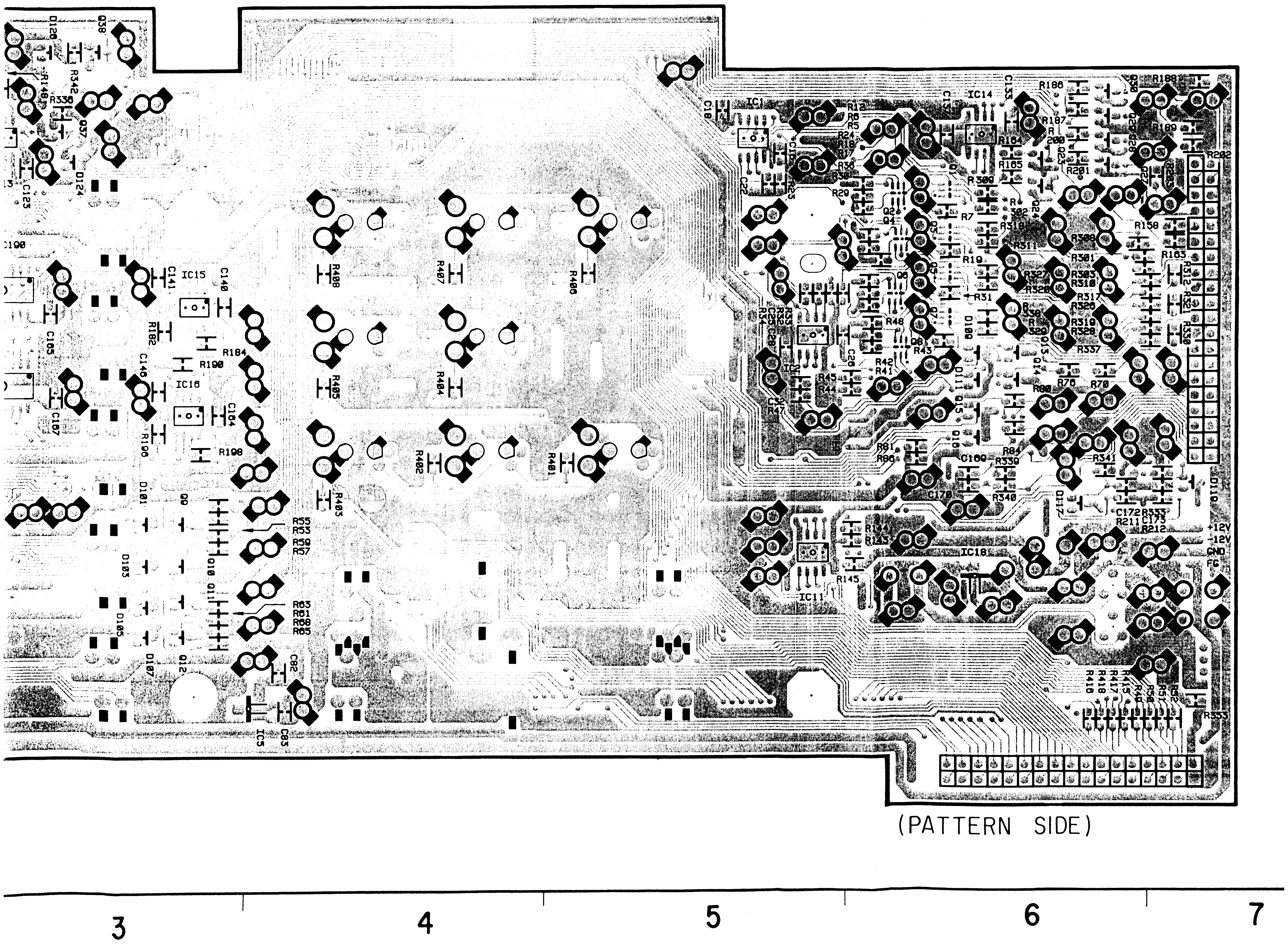
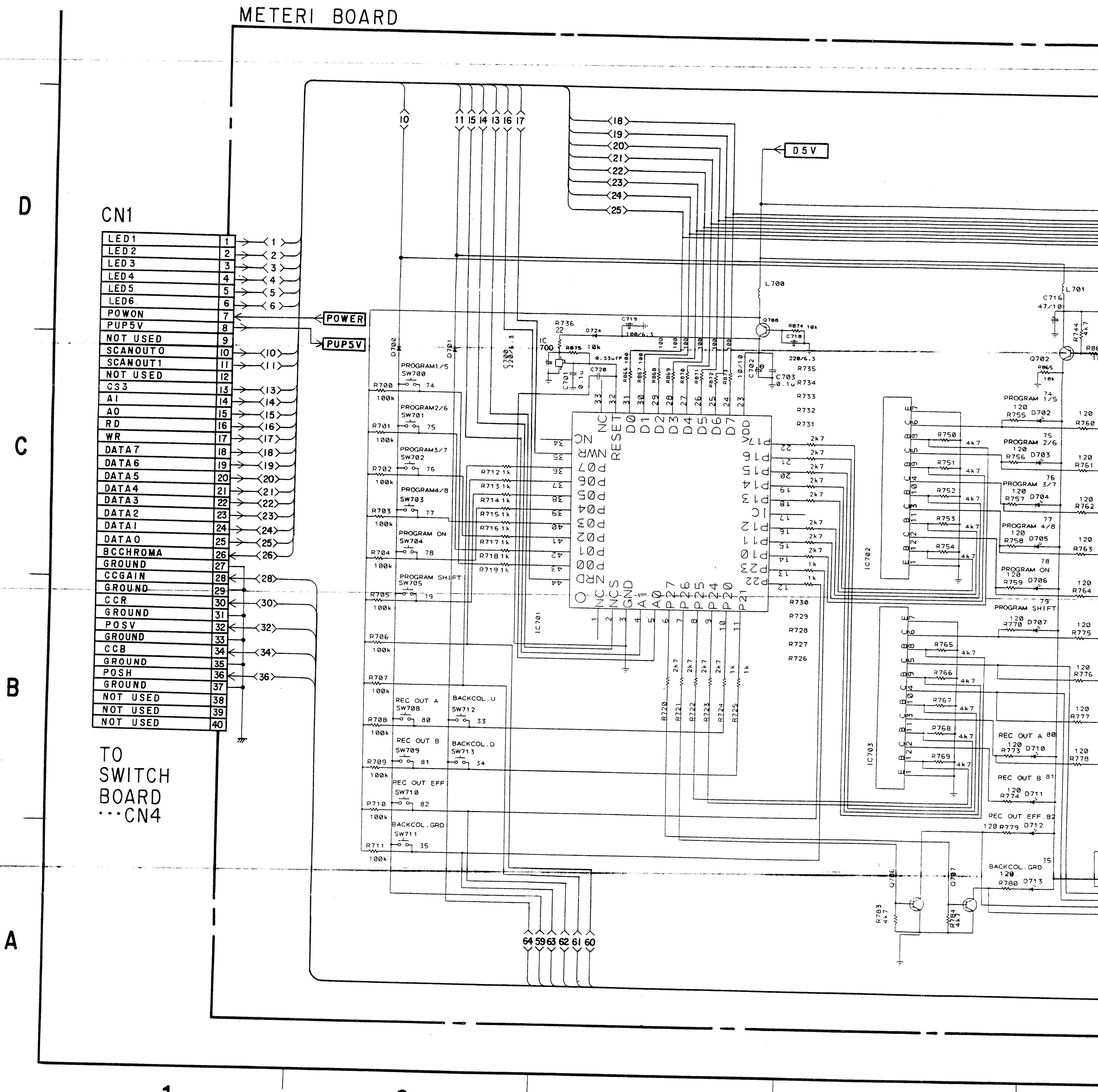

IC1
IC5
IC11
IC14
IC15
IC16
IC18
D101
D103
D105
D107
D111
D117
D119
D120
D124
Q36
Q37
Q38
C140
C141
C146
C160
C170
C172
C173
C82
C83
C105
C107
C125
R148
R342
R336
R102
R184
R190
R196
R198
R408
R407
R406
R405
R404
R403
R402
R401
R55
R53
R59
R57
R63
R61
R68
R65
R186
R187
R188
R189
R200
R201
R202
R164
R165
R300
R302
R308
R301
R310
R311
R320
R326
R319
R328
R337
R339
R340
R341
R333
R353
R158
R163
R145
R70
R75
R84
R86
R81
R42
R41
R43
R45
R44
R47
R48
R31
R19
R7
R29
R24
R12
R6
R5
R211
R212
R416
R418
R415
+12V
-12V
GND
FG
3
4
5
6
7

(PATTERN SIDE)

<Index>

AUDIO BOARD
(PATTERN SIDE)

IC1	C5
IC2	B5
IC3	C3
IC4	B3
IC5	A4
IC8	C2
IC9	B1
IC10	B1
IC11	B5
IC13	C3
IC14	C6
IC15	C3
IC16	B3
IC17	A1
IC18	B6
Q1	C6
Q2	C6
Q3	C6
Q4	C6
Q5	C6
Q6	C6
Q7	B6
Q8	B6
Q9	B3
Q10	B3
Q11	A3
Q12	A3
Q13	B6
Q14	B6
Q15	B6
Q16	B6
Q17	C2
Q18	C2
Q19	C2
Q20	C2
Q21	B1
Q22	A1
Q23	C6
Q24	C6
Q27	C6
Q28	C6
Q29	C6
Q30	C6
Q36	B1
Q37	C3
Q38	C3
D101	B3
D103	B3
D105	A3
D107	A3
D109	B6
D111	B6
D117	B6
D119	B7
D121	B1
D124	C3
D126	C3


METERI BOARD
CN1
LED1 1
LED2 2
LED3 3
LED4 4
LED5 5
LED6 6
POWON 7
PUP5V 8
NOT USED 9
SCANOUT0 10
SCANOUT1 11
NOT USED 12
CS3 13
A1 14
A0 15
RD 16
WR 17
DATA7 18
DATA6 19
DATA5 20
DATA4 21
DATA3 22
DATA2 23
DATA1 24
DATA0 25
BCCHROMA 26
GROUND 27
CCGAIN 28
GROUND 29
CCR 30
GROUND 31
POSV 32
GROUND 33
CCB 34
GROUND 35
POSH 36
GROUND 37
NOT USED 38
NOT USED 39
NOT USED 40
TO SWITCH BOARD ···CN4
POWER
PUP5V
D5V
IC700
IC701
IC702
IC703
Q702
Q706
Q707
Q708
L700
L701
PROGRAM1/5 SW700
PROGRAM2/6 SW701
PROGRAM3/7 SW702
PROGRAM4/8 SW703
PROGRAM ON SW704
PROGRAM SHIFT SW705
REC OUT A SW708
REC OUT B SW709
REC OUT EFF SW710
BACKCOL.GRD SW711
BACKCOL.U SW712
BACKCOL.D SW713
NC RESET D0 D1 D2 D3 D4 D5 D6 D7 VDD
NC NWR P07 P06 P05 P04 P03 P02 P01 P00 NRD
P17 P16 P15 P14 P13 IC P12 P11 P10 P23 P22
O NC NCS GND A1 A0 P27 P26 P25 P24 P20 P21
64 59 63 62 61 60
D
C
B
A
1
2
3
4

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METER 1 BOARD

IC700	C3	IC708	C6	Q702	C5	D700	C2	D707	B5	D719	B6
IC701	C3	IC709	B6	Q703	C5	D701	C2	D710	B5	D721	B7
IC702	C4	IC710	B5	Q704	C5	D702	C5	D711	B5	D722	C5
IC703	B4	IC711	B5	Q705	C5	D703	C5	D712	B5	D724	C3
IC704	D6	IC712	B6	Q706	A4	D704	C5	D713	A5		
IC705	D6	IC713	B6	Q707	A4	D705	C5	D717	D7		
IC706	D6	IC714	A6	Q708	D3	D706	C5	D718	C7		
IC707	C6										

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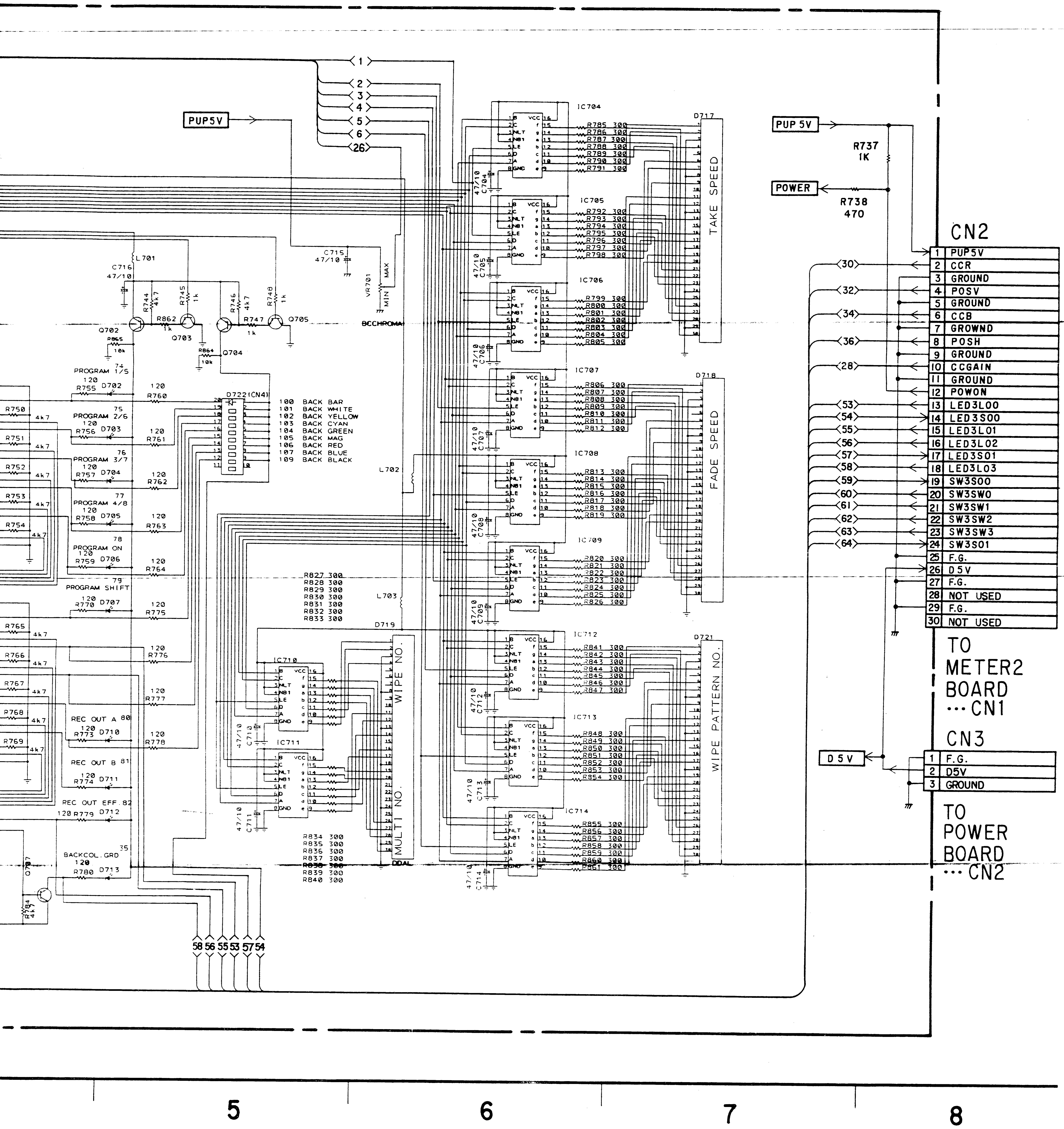
PUP5V
PUP 5V
POWER
R737
1K
R738
470
D5V
IC704
IC705
IC706
IC707
IC708
IC709
IC710
IC711
IC712
IC713
IC714
D717
D718
D719
D721
D722(CN4)
TAKE SPEED
FADE SPEED
WIPE NO.
MULTI NO.
WIPE PATTERN NO.
C715
47/10
VR701
MIN
MAX
BCCHROMA
L701
L702
L703
C716
47/10
R744
4k7
R745
1k
R746
4k7
R748
1k
R862
1k
R747
1k
Q702
Q703
Q704
Q705
R865
10k
R864
10k
PROGRAM 1/5
PROGRAM 2/6
PROGRAM 3/7
PROGRAM 4/8
PROGRAM ON
PROGRAM SHIFT
REC OUT A
REC OUT B
REC OUT EFF
BACKCOL. GRD
100 BACK BAR
101 BACK WHITE
102 BACK YELLOW
103 BACK CYAN
104 BACK GREEN
105 BACK MAG
106 BACK RED
107 BACK BLUE
109 BACK BLACK
R827 300
R828 300
R829 300
R830 300
R831 300
R832 300
R833 300
R834 300
R835 300
R836 300
R837 300
~~R838 300~~
R839 300
R840 300
DDAL
58 56 55 53 57 54
CN2
1 PUP5V
2 CCR
3 GROUND
4 POSV
5 GROUND
6 CCB
7 GROWND
8 POSH
9 GROUND
10 CCGAIN
11 GROUND
12 POWON
13 LED3L00
14 LED3S00
15 LED3L01
16 LED3L02
17 LED3S01
18 LED3L03
19 SW3S00
20 SW3SW0
21 SW3SW1
22 SW3SW2
23 SW3SW3
24 SW3S01
25 F.G.
26 D5V
27 F.G.
28 NOT USED
29 F.G.
30 NOT USED
TO METER2 BOARD ···CN1
CN3
1 F.G.
2 D5V
3 GROUND
TO POWER BOARD ···CN2
5
6
7
8

SCHEMATIC DIAGRAM OF METER-1 BOARD

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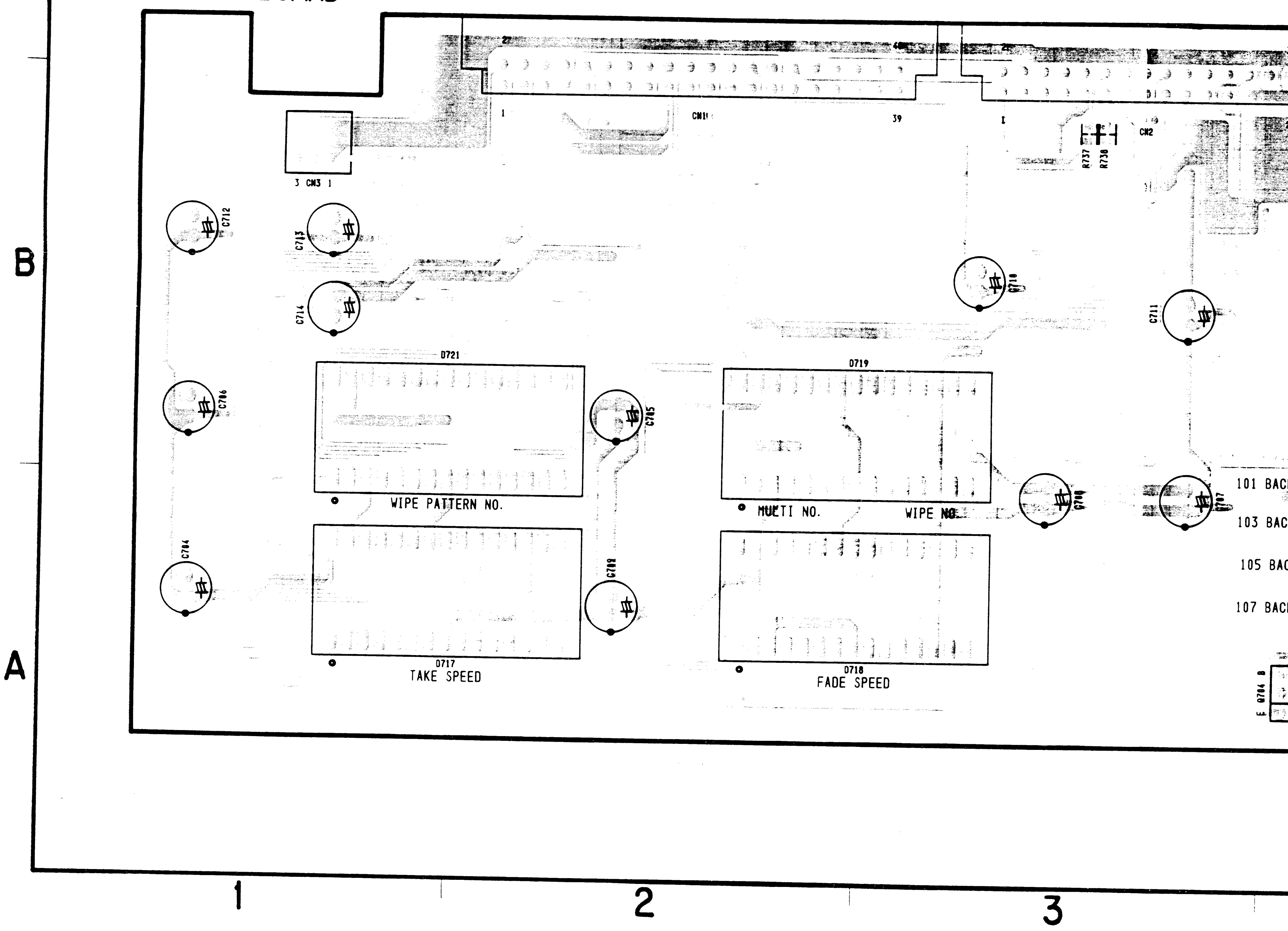
METER 1 BOARD
(COMPONENT SIDE)

IC701	B6
IC702	A4
IC703	A4
Q702	B4
Q703	B4
Q704	A4
Q705	A4
Q706	A6
Q707	B5
Q708	B5
D700	B4
D701	A4
D702	B5
D703	B5
D704	B5
D705	B5
D706	A5
D707	A5
D710	B6
D711	B6
D712	A6
D713	B4
D717	A1
D718	A2
D719	B2
D721	B1
D722	A4

METER 1 BOARD



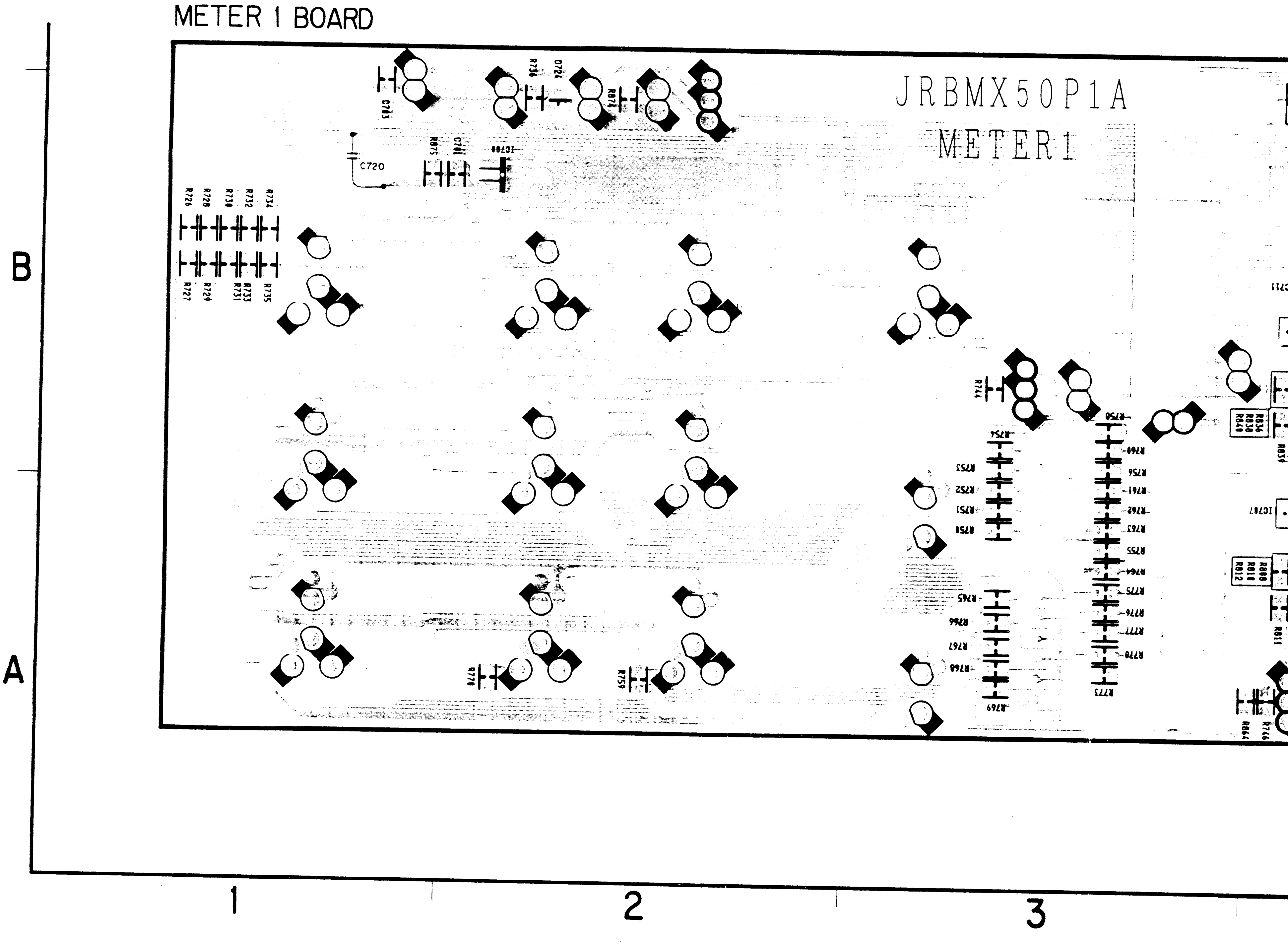
B
A
1
2
3
CN1
CN2
3 CN3 1
1
39
R737
R738
C712
C713
C714
C710
C711
C706
C705
C708
C707
C704
C709
D721
D719
WIPE PATTERN NO.
MULTI NO.
WIPE NO.
D717
TAKE SPEED
D718
FADE SPEED
101 BAC
103 BAC
105 BAC
107 BAC
Q704

<Index>

METER 1 BOARD
(PATTERN SIDE)

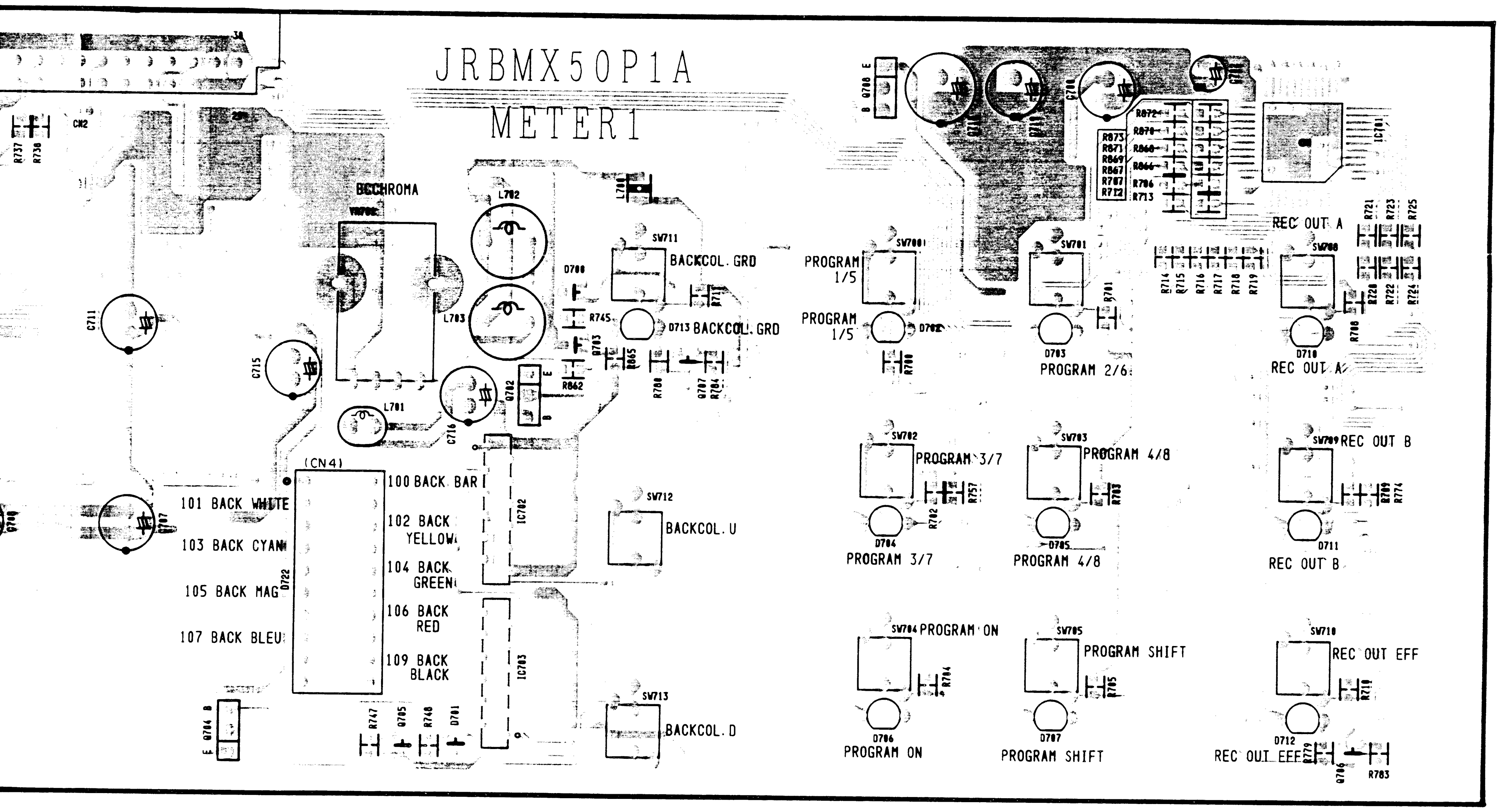
IC700	B2
IC704	A6
IC705	B5
IC706	B6
IC707	A4
IC708	A4
IC709	A5
IC710	B4
IC711	B4
IC712	B6
IC713	B6
IC714	B5
D724	B2

METER 1 BOARD



JRBMX50P1A
METER1
B
A
1
2
3
C720
IC700
R726
R727
R728
R729
R730
R731
R732
R733
R734
R735
R744
R750
R751
R752
R753
R754
R745
R766
R767
R768
R769
R773
R776
R777
R778
R759
R760
R761
R762
R763
R764
R770
IC707
R864
R811

CONDUCTOR VIEW OF METER-1 BOARD


JRBMX50P1A
METER1
BCCHROMA
(CN4)
100 BACK BAR
101 BACK WHITE
102 BACK YELLOW
103 BACK CYAN
104 BACK GREEN
105 BACK MAG
106 BACK RED
107 BACK BLEU
109 BACK BLACK
BACKCOL. GRD
BACKCOL. U
BACKCOL. D
PROGRAM 1/5
PROGRAM 2/6
PROGRAM 3/7
PROGRAM 4/8
PROGRAM ON
PROGRAM SHIFT
REC OUT A
REC OUT B
REC OUT EFF
L701
L702
L703
IC701
IC702
IC703
SW700
SW701
SW702
SW703
SW704
SW705
SW708
SW709
SW710
SW711
SW712
SW713

(COMPONENT SIDE)

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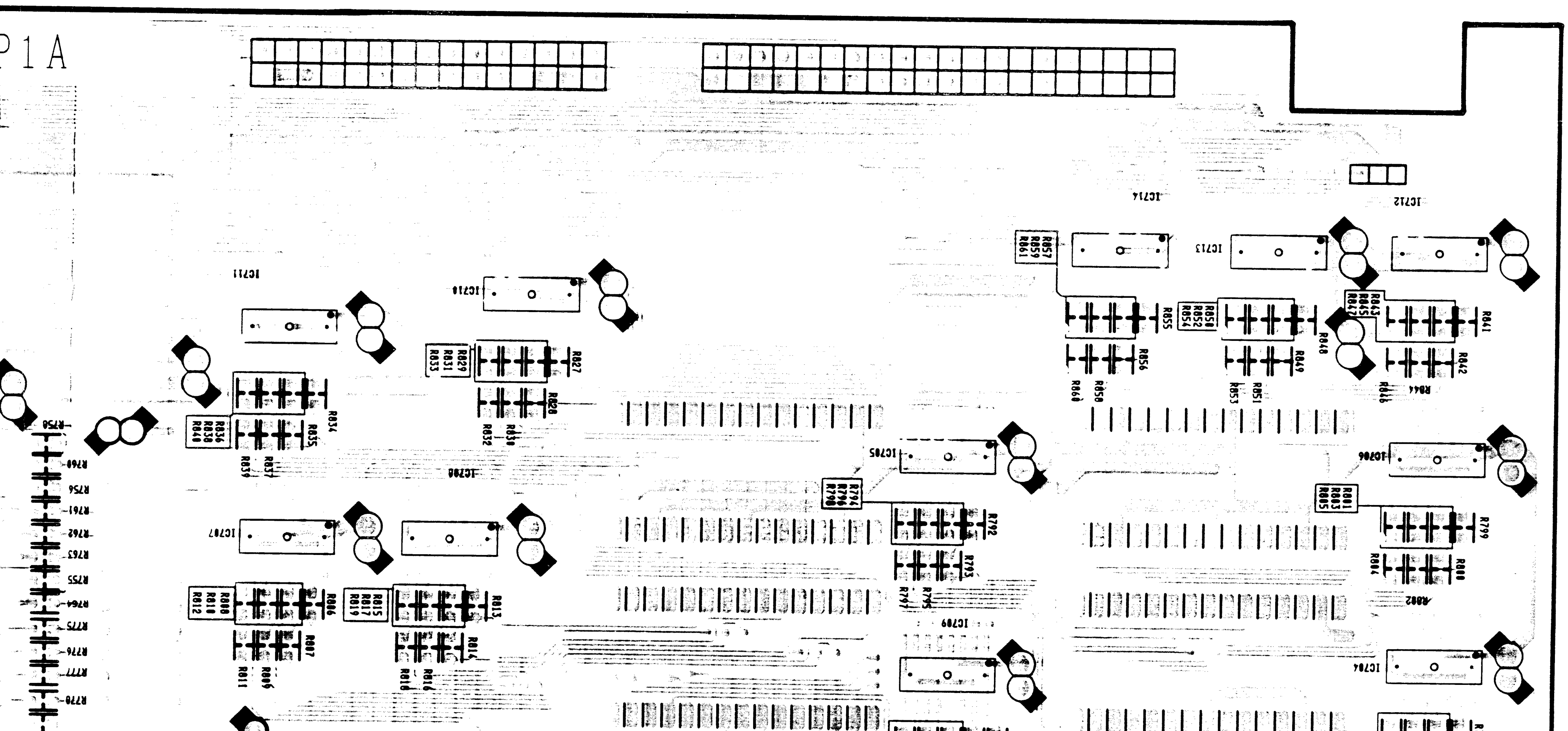
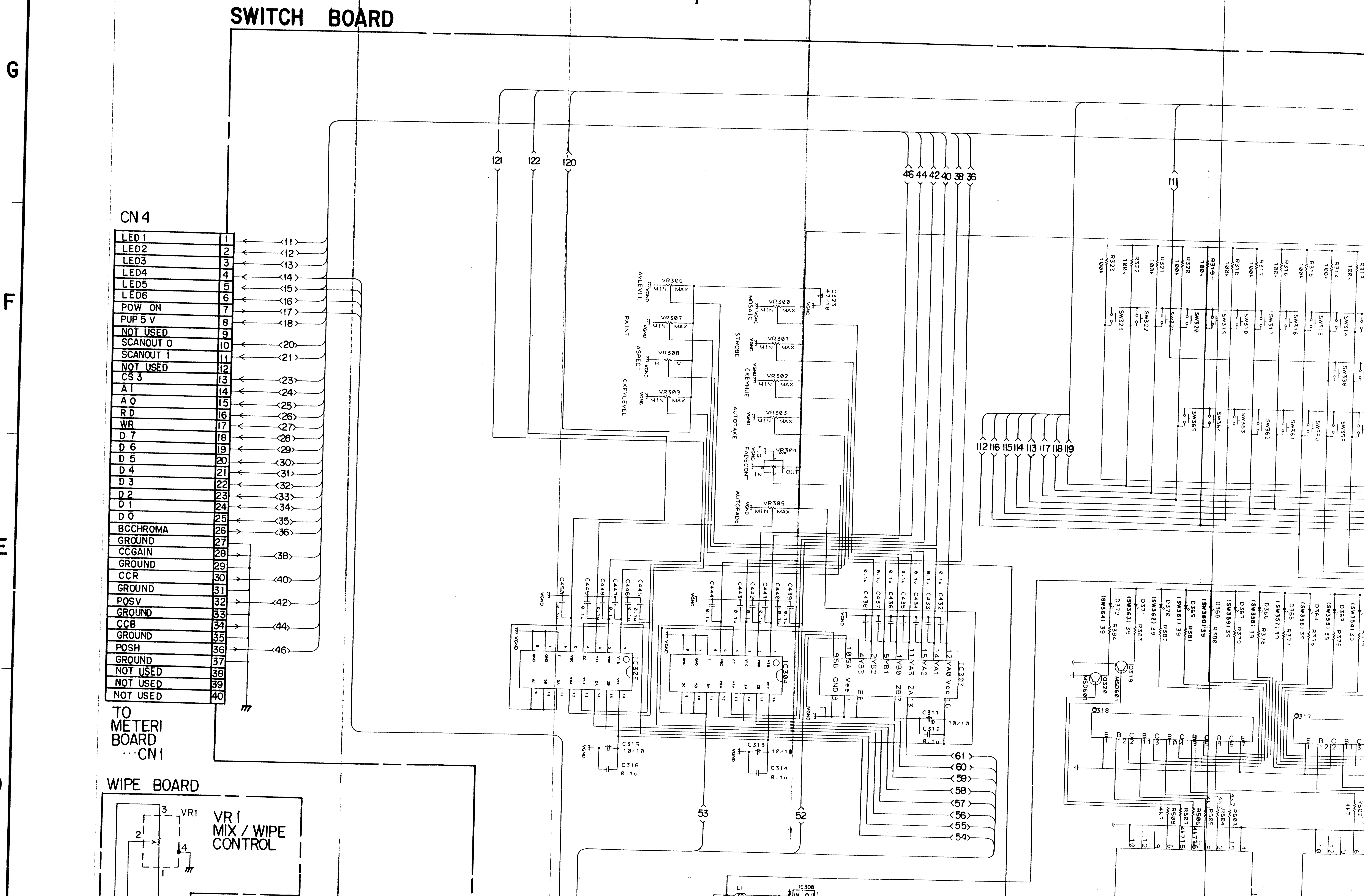
4 5 6


P1A
IC704
IC705
IC706
IC707
IC708
IC709
IC710
IC711
IC712
IC713
IC714

(PATTERN SIDE)

4 5 6

SCHEMATIC DIAGRAM OF S


G
F
E
D
SWITCH BOARD
CN4
LED1 1
LED2 2
LED3 3
LED4 4
LED5 5
LED6 6
POW ON 7
PUP 5 V 8
NOT USED 9
SCANOUT 0 10
SCANOUT 1 11
NOT USED 12
CS 3 13
A 1 14
A 0 15
R D 16
WR 17
D 7 18
D 6 19
D 5 20
D 4 21
D 3 22
D 2 23
D 1 24
D 0 25
BCCHROMA 26
GROUND 27
CCGAIN 28
GROUND 29
CCR 30
GROUND 31
PQSV 32
GROUND 33
CCB 34
GROUND 35
POSH 36
GROUND 37
NOT USED 38
NOT USED 39
NOT USED 40
TO METERI BOARD …CN1
WIPE BOARD
VR1
VR1 MIX / WIPE CONTROL
121
122
120
46 44 42 40 38 36
111
112 116 115 114 113 117 118 119
AVLEVEL
VR306
PAINT
VR307
ASPECT
VR308
H V
CKEYLEVEL
VR309
MOSAIC
VR300
STROBE
VR301
CKEYHUE
VR302
AUTOTAKE
VR303
FADECONT
VR304
F.G
IN OUT
AUTOFADE
VR305
MIN MAX
VGND
C323 47/10
R323 100k
R322 100k
R321 100k
R320 100k
R319 100k
R318 100k
R317 100k
R316 100k
R315 100k
R314 100k
SW323
SW322
SW321
SW320
SW319
SW318
SW317
SW316
SW315
SW314
SW338
SW365
SW364
SW363
SW362
SW361
SW360
SW359
C450
C449
C448
C447
C446
C445
0.1u
C444
C443
C442
C441
C440
C439
C438
C437
C436
C435
C434
C433
C432
IC305
IC304
IC303
C311
C312 0.1u
10/10
C315 10/10
C316 0.1u
C313 10/10
C314 0.1u
61 60 59 58 57 56 55 54
53
52
D372 R384
D371 R383
D370 R382
D369 R381
D368 R380
D367 R379
D366 R378
D365 R377
D364 R376
D363 R375
(SW364) 39
(SW363) 39
(SW362) 39
(SW361) 39
(SW360) 39
(SW359) 39
(SW358) 39
(SW357) 39
(SW356) 39
(SW355) 39
(SW354) 39
Q320 MSD601
Q319 MSD601
Q318
Q317
E B C
R508 4k7
R507
R506
R505
R504
R503
R502 4k7
L1
IC308
IN OUT

TIC DIAGRAM OF SWITCH BOARD

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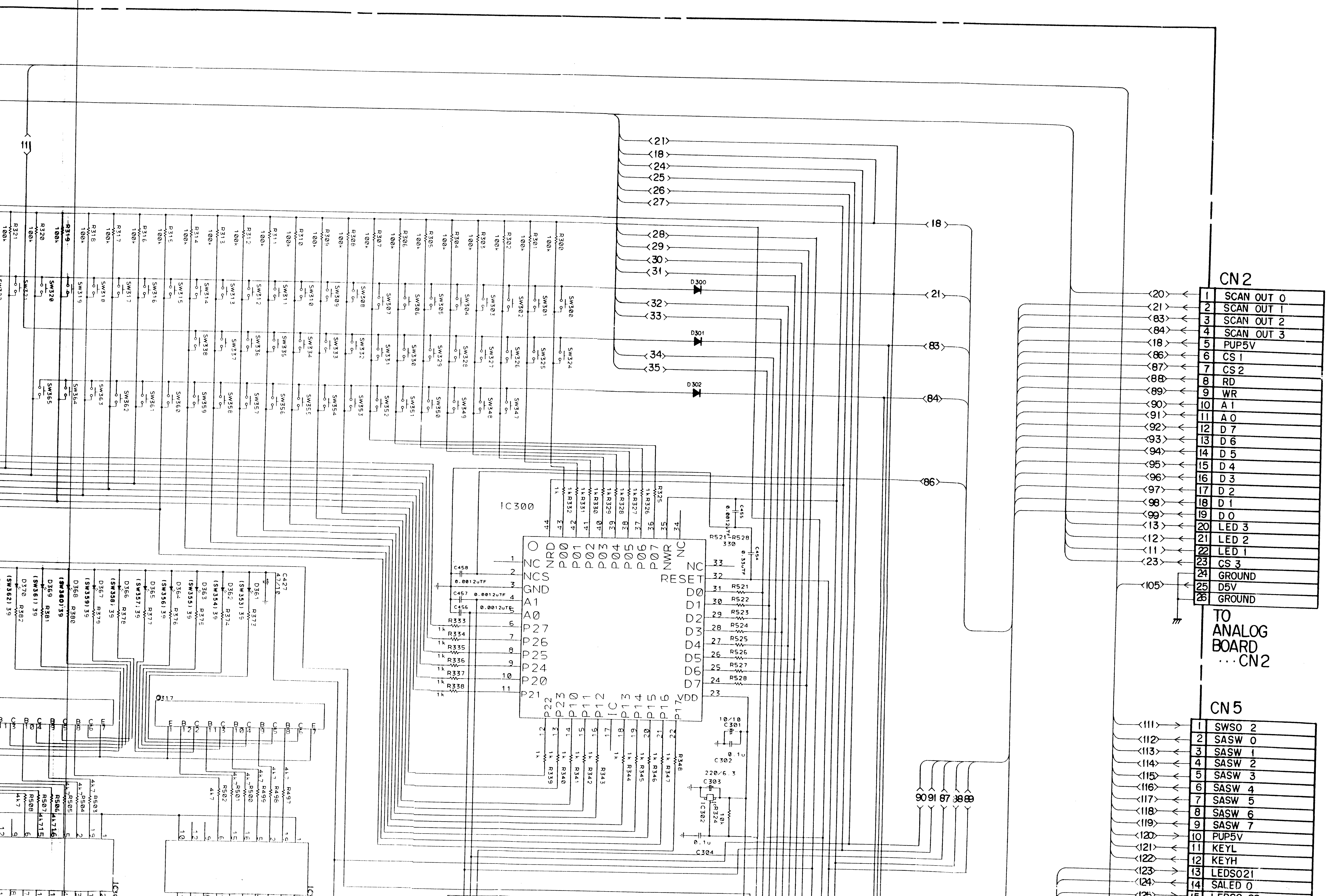
IC300
NC
NCS
GND
A1
A0
P27
P26
P25
P24
P20
P21
NRD
P00
P01
P02
P03
P04
P05
P06
P07
NWR
NC
RESET
D0
D1
D2
D3
D4
D5
D6
D7
VDD
P22
P23
P10
P11
P12
IC
P13
P14
P15
P16
P17
D300
D301
D302
C301
C302
C303
C304
IC302
Q317
CN2
SCAN OUT 0
SCAN OUT 1
SCAN OUT 2
SCAN OUT 3
PUP5V
CS 1
CS 2
RD
WR
A 1
A 0
D 7
D 6
D 5
D 4
D 3
D 2
D 1
D 0
LED 3
LED 2
LED 1
CS 3
GROUND
D5V
GROUND
TO ANALOG BOARD ···CN2
CN5
SWS0 2
SASW 0
SASW 1
SASW 2
SASW 3
SASW 4
SASW 5
SASW 6
SASW 7
PUP5V
KEYL
KEYH
LEDS021
SALED 0

<Index>

SWITCH BOARD	
IC300	E8
IC301	C8
IC302	D8
IC303	E4
IC304	E4
IC305	E3
IC306	D6
IC307	D6
IC308	D4
IC309	C4
IC310	B8
Q300	B7
Q301	B7
Q302	A7
Q303	A7
Q304	C7
Q305	C6
Q306	B6
Q307	B5
Q308	A5
Q309	C5
Q310	B4
Q311	B4
Q312	B4
Q313	B4
Q314	C3
Q315	C2
Q316	C6
Q317	D6
Q318	D5
Q319	E5
Q320	E5
D300	F8
D301	F8
D302	F8
D303	B7
D304	B7
D305	B7
D306	B7
D307	B7
D308	B7
D309	B7
D310	B7
D311	B7
D312	B6
D313	B6
D314	B6
D315	B6
D316	B6
D317	B6
D318	B6
D319	B6
D320	B6
D321	B6
D322	B6
D323	B6
D324	B6
D325	B6
D326	B6
D327	B5
D328	B5
D329	B5
D330	B5
D331	B5
D332	B5
D333	B5
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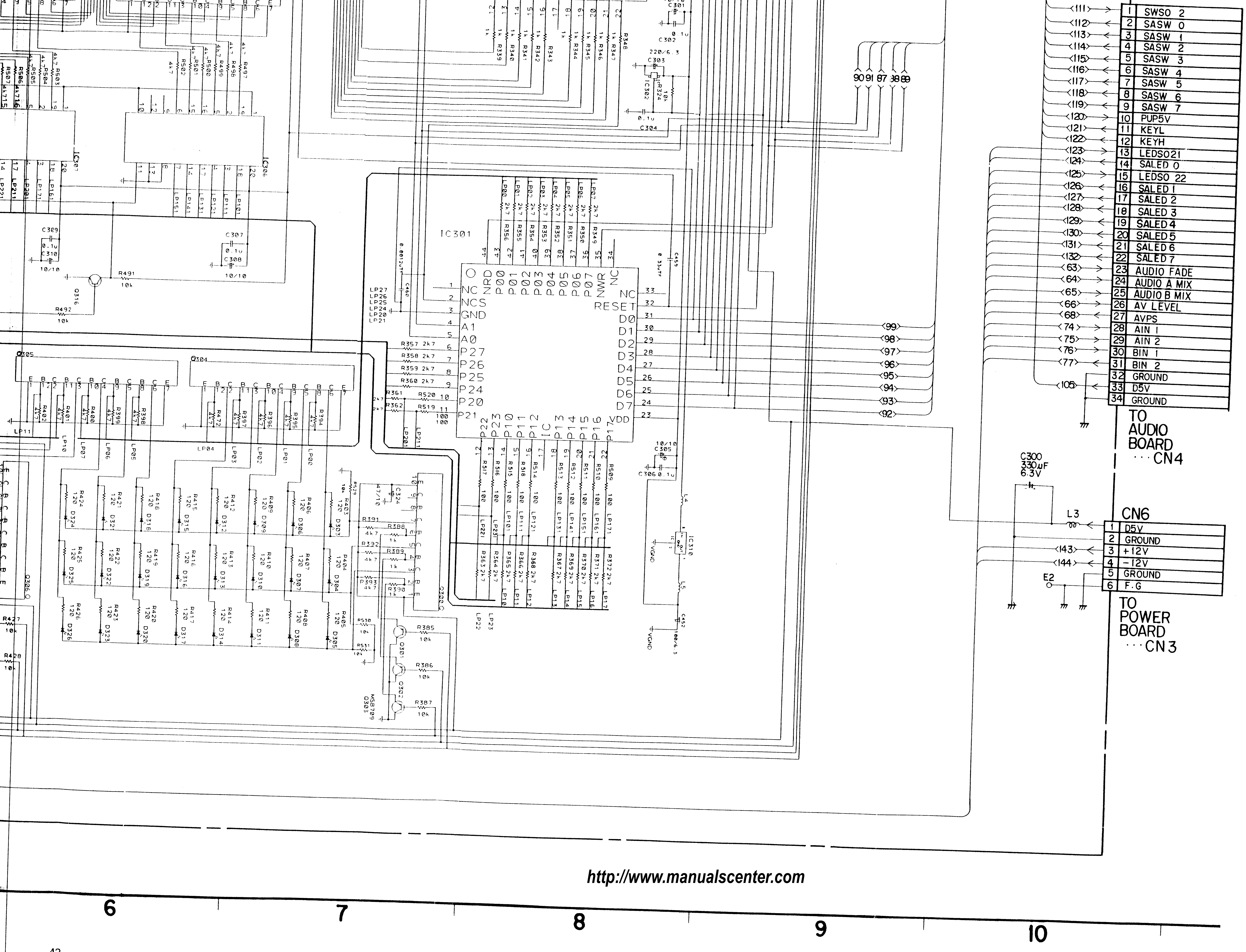
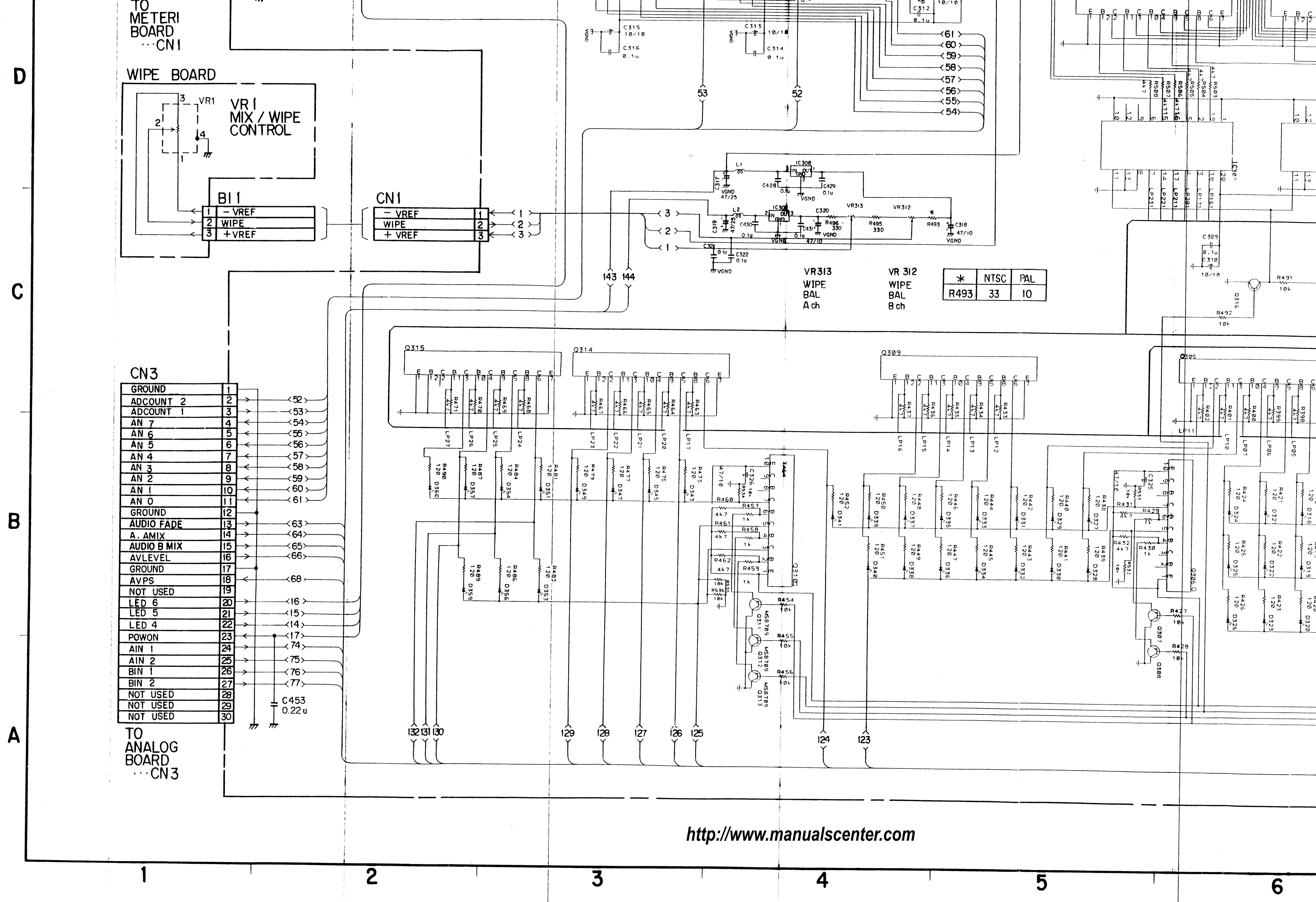
D337	B4
D338	B4
D339	B4
D340	B4
D341	B4

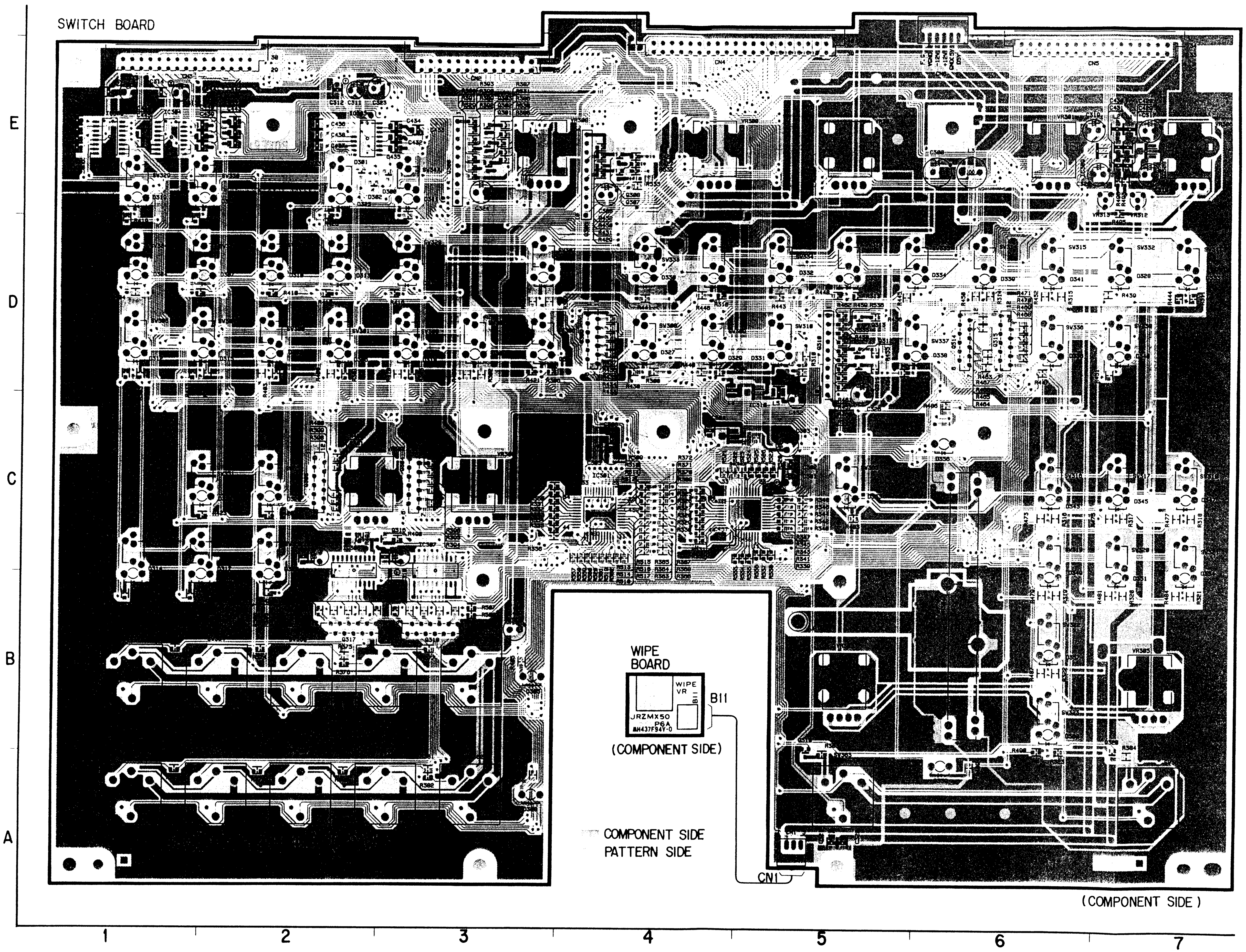

IC301
IC306
IC307
IC302
IC310
Q304
Q305
Q306
Q316
Q301
Q302
MSB709
Q303
NC
NCS
GND
A1
A0
P27
P26
P25
P24
P20
P21
NRD
P00
P01
P02
P03
P04
P05
P06
P07
NWR
RESET
D0
D1
D2
D3
D4
D5
D6
D7
VDD
P22
P23
P10
P11
P12
IC
P13
P14
P15
P16
P17
C300
330μF
6.3V
L3
L4
L5
E2
1 SWSO 2
2 SASW 0
3 SASW 1
4 SASW 2
5 SASW 3
6 SASW 4
7 SASW 5
8 SASW 6
9 SASW 7
10 PUP5V
11 KEYL
12 KEYH
13 LEDSO21
14 SALED 0
15 LEDSO 22
16 SALED 1
17 SALED 2
18 SALED 3
19 SALED 4
20 SALED 5
21 SALED 6
22 SALED 7
23 AUDIO FADE
24 AUDIO A MIX
25 AUDIO B MIX
26 AV LEVEL
27 AVPS
28 AIN 1
29 AIN 2
30 BIN 1
31 BIN 2
32 GROUND
33 D5V
34 GROUND
TO AUDIO BOARD ···CN4
CN6
1 D5V
2 GROUND
3 +12V
4 -12V
5 GROUND
6 F.G
TO POWER BOARD ···CN3
6
7
8
9
10

D326	B6
D327	B5
D328	B5
D329	B5
D330	B5
D331	B5
D332	B5
D333	B5
D334	B5
D335	B5
D336	B5
D337	B4
D338	B4
D339	B4
D340	B4
D341	B4
D343	B3
D345	B3
D347	B3
D349	B3
D351	B3
D353	B3
D354	B3
D356	B3
D357	B2
D360	B2


TO METERI BOARD ···CN1
WIPE BOARD
VR1
VR1 MIX / WIPE CONTROL
B11
1 − VREF
2 WIPE
3 + VREF
CN1
− VREF 1
WIPE 2
+ VREF 3
CN3
1 GROUND
2 ADCOUNT 2
3 ADCOUNT 1
4 AN 7
5 AN 6
6 AN 5
7 AN 4
8 AN 3
9 AN 2
10 AN 1
11 AN 0
12 GROUND
13 AUDIO FADE
14 A. AMIX
15 AUDIO B MIX
16 AVLEVEL
17 GROUND
18 AVPS
19 NOT USED
20 LED 6
21 LED 5
22 LED 4
23 POWON
24 AIN 1
25 AIN 2
26 BIN 1
27 BIN 2
28 NOT USED
29 NOT USED
30 NOT USED
C453 0.22u
TO ANALOG BOARD ···CN3
C315 10/10
C316 0.1u
C313 10/10
C314 0.1u
C312 0.1u
IC308
IC309
L1
L2
C317 47/25
C319 47/25
C428 0.1u
C429 0.1u
C430 0.1u
C431 0.1u
C320
R496 330
R495 330
VR313
VR312
R493
C318 47/10
C321 0.1u
C322 0.1u
VGND
VR313 WIPE BAL A ch
VR 312 WIPE BAL B ch
Q315
Q314
Q309
Q305
Q310
Q306
Q311 MSB709
Q312 MSB709
Q313 MSB709
Q307
Q308
Q316
R491 10k
R492 10k
C309 0.1u
C310 10/10
C307
R454 10k
R455 10k
R456 10k
R427 10k
R428 10k
C326 47/10
C325 47/10
R460
R457
R458
R459
R461 4k7
R462 4k7
R429
R430 1k
R431
R432 4k7
52 53 54 55 56 57 58 59 60 61
63 64 65 66 68
16 15 14 17
74 75 76 77
143 144
132 131 130 129 128 127 126 125 124 123
D
C
B
A
1 2 3 4 5 6

*	NTSC	PAL
R493	33	10

CONDUCTOR VIEW OF SWITCH BOARD

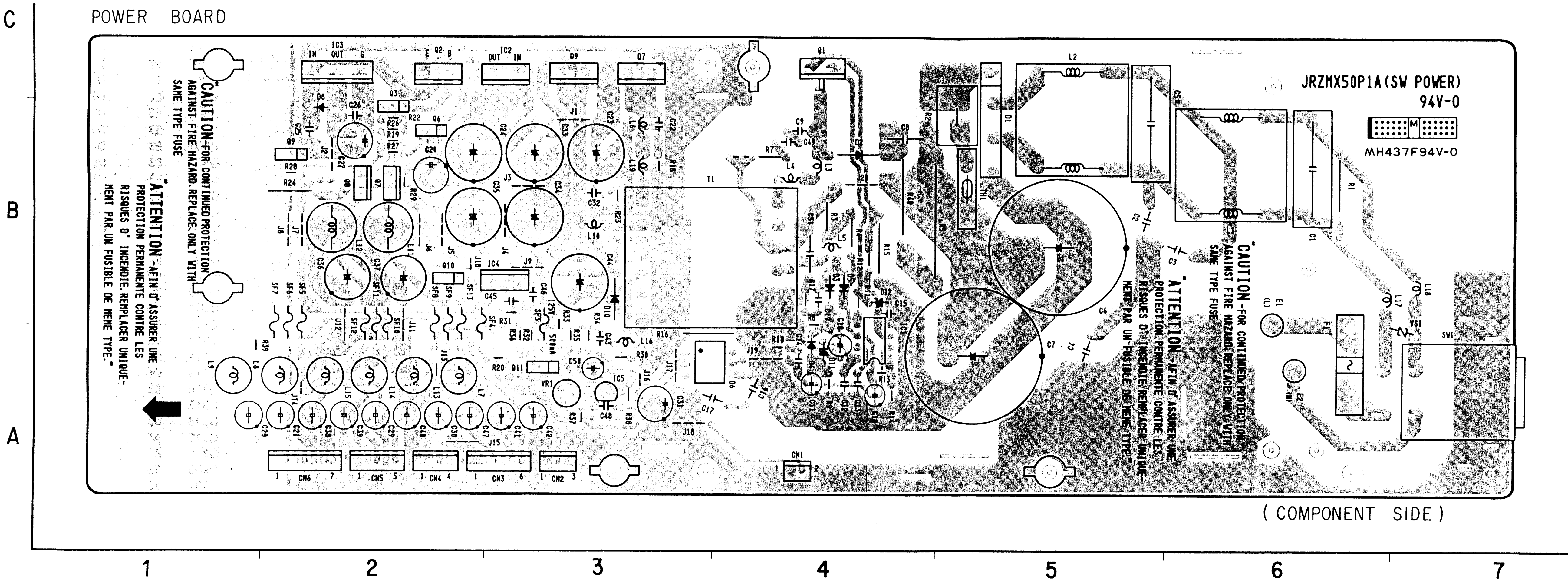

SWITCH BOARD
E
D
C
B
A
1
2
3
4
5
6
7
CN4
CN5
WIPE BOARD
WIPE VR
B11
JRZMX50
P6A
(COMPONENT SIDE)
COMPONENT SIDE
PATTERN SIDE
CN1
(COMPONENT SIDE)

<Index>

SWITCH BOARD

IC300	C5
IC301	C4
IC302	C4
IC303	E2
IC304	E1
IC305	E1
IC306	C2
IC307	C3
IC308	E7
IC309	E6
IC310	C5
Q300	E3
Q301	E3
Q302	E3
Q303	E3
Q304	C3
Q305	C2
Q306	E4
Q307	E4
Q308	E4
Q309	D4
Q310	D5
Q311	D5
Q312	D5
Q313	D5
Q314	D6
Q315	D6
Q316	C3
Q317	B2
Q318	B3
Q319	A5
Q320	A7
D300	E3
D301	E2
D302	E2
D303	D2
D304	D1
D305	B3
D306	D2
D307	D2
D308	A3
D309	D3
D310	D2
D311	E3
D312	D1
D313	D2
D314	B1
D315	D2
D316	D3
D317	B2
D318	D3
D319	E1
D320	B2
D321	D3
D322	E1
D323	C2
D324	D3
D325	E2
D326	C2
D327	D4
D328	D7
D329	D4
D330	D4
D331	D5
D332	D5
D333	D7
D334	D5
D335	D4
D336	D6
D337	D5
D338	D5
D339	D6
D340	D7
D341	D6
D343	C6
D345	C7
D347	C7
D349	B6
D351	B7
D353	C5
D354	B7
D356	C6
D357	B6
D359	A6
D360	B6

CONDUCTOR VIEW OF POWER BOARD


POWER BOARD
JRZMX50P1A(SW POWER)
94V-0
MH437F94V-0
CAUTION-FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE FUSE
"ATTENTION-AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE."
(COMPONENT SIDE)
C
B
A
1
2
3
4
5
6
7
8

POWER BOARD

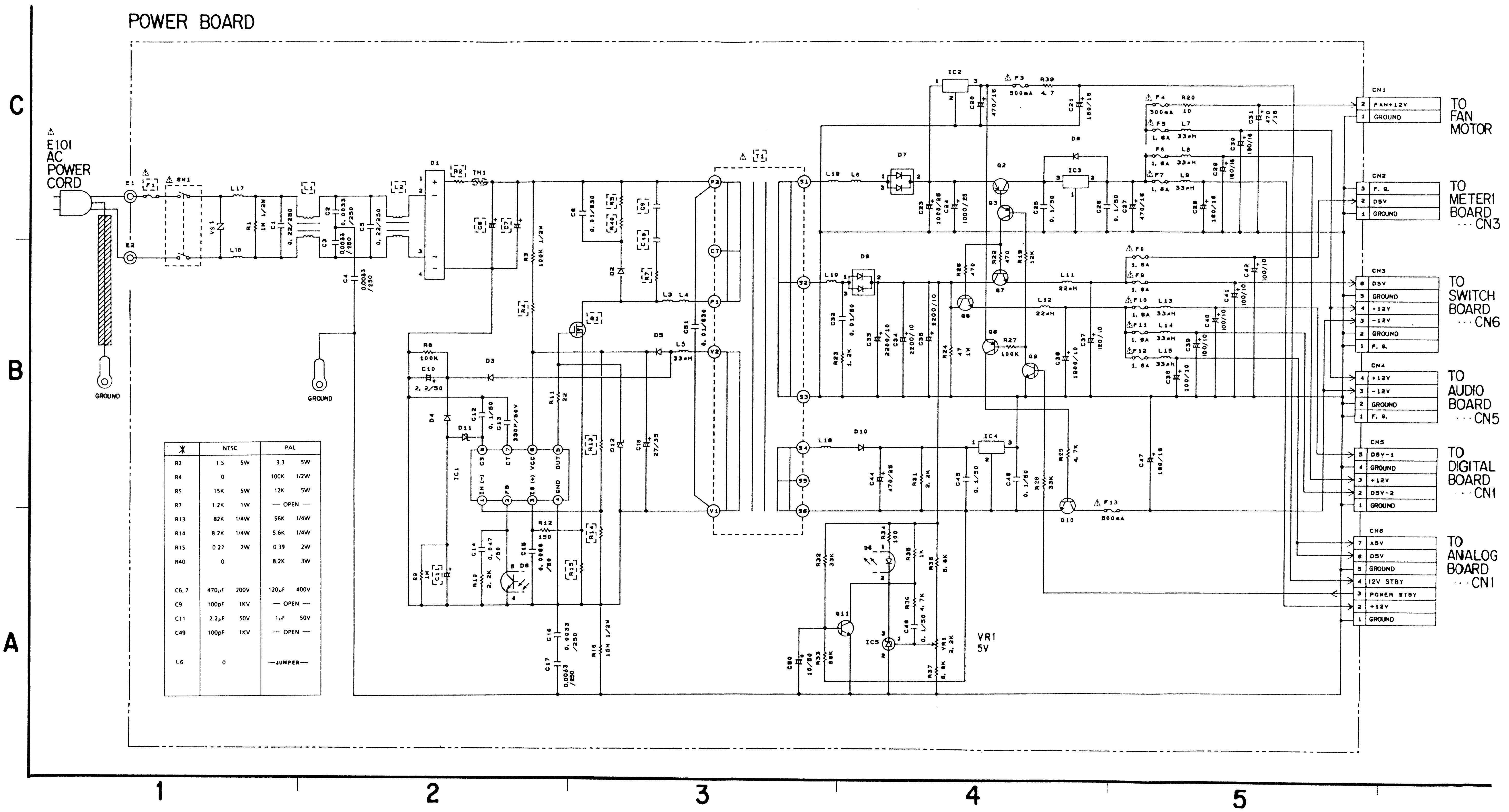
*	NTSC	PAL
R2	1.5 5W	3.3 5W
R4	0	100K 1/2W
R5	15K 5W	12K 5W
R7	1.2K 1W	— OPEN —
R13	82K 1/4W	56K 1/4W
R14	8.2K 1/4W	5.6K 1/4W
R15	0.22 2W	0.39 2W
R40	0	8.2K 3W
C6, 7	470μF 200V	120μF 400V
C9	100pF 1KV	— OPEN —
C11	2.2μF 50V	1μF 50V
C49	100pF 1KV	— OPEN —
F1	125V 3.15A	250V 2A
L6	○	— JUMPER —

<Index>

POWER BOARD

IC1	A4	D1	B5
IC2	C3	D2	B4
IC3	C2	D3	B4
IC4	B3	D4	A4
IC5	A3	D5	B4
Q1	C4	D6	A3
Q2	C2	D7	C3
Q3	B2	D8	B2
Q6	B2	D9	C3
Q7	B2	D10	B3
Q8	B2	D11	A4
Q9	B2	D12	B4
Q10	B2		
Q11	A3		

SCHEMATIC DIAGRAM OF POWER BOARD


POWER BOARD
E101
AC
POWER
CORD
GROUND
GROUND
C
B
A
1
2
3
4
5
IC1
IC2
IC3
IC4
IC5
VR1
5V
CN1
2 FAN+12V
1 GROUND
TO
FAN
MOTOR
CN2
3 F. G.
2 D5V
1 GROUND
TO
METER1
BOARD
···CN3
CN3
6 D5V
5 GROUND
4 +12V
3 -12V
2 GROUND
1 F. G.
TO
SWITCH
BOARD
···CN6
CN4
4 +12V
3 -12V
2 GROUND
1 F. G.
TO
AUDIO
BOARD
···CN5
CN5
5 D5V-1
4 GROUND
3 +12V
2 D5V-2
1 GROUND
TO
DIGITAL
BOARD
···CN1
CN6
7 A5V
6 D5V
5 GROUND
4 12V STBY
3 POWER STBY
2 +12V
1 GROUND
TO
ANALOG
BOARD
···CN1

✱	NTSC		PAL	
R2	1.5	5W	3.3	5W
R4	0		100K	1/2W
R5	15K	5W	12K	5W
R7	1.2K	1W	— OPEN —	
R13	82K	1/4W	56K	1/4W
R14	8 2K	1/4W	5.6K	1/4W
R15	0 22	2W	0.39	2W
R40	0		8.2K	3W
C6, 7	470μF	200V	120μF	400V
C9	100pF	1KV	— OPEN —	
C11	2.2μF	50V	1μF	50V
C49	100pF	1KV	— OPEN —	
L6	0		—JUMPER—	

<Index>

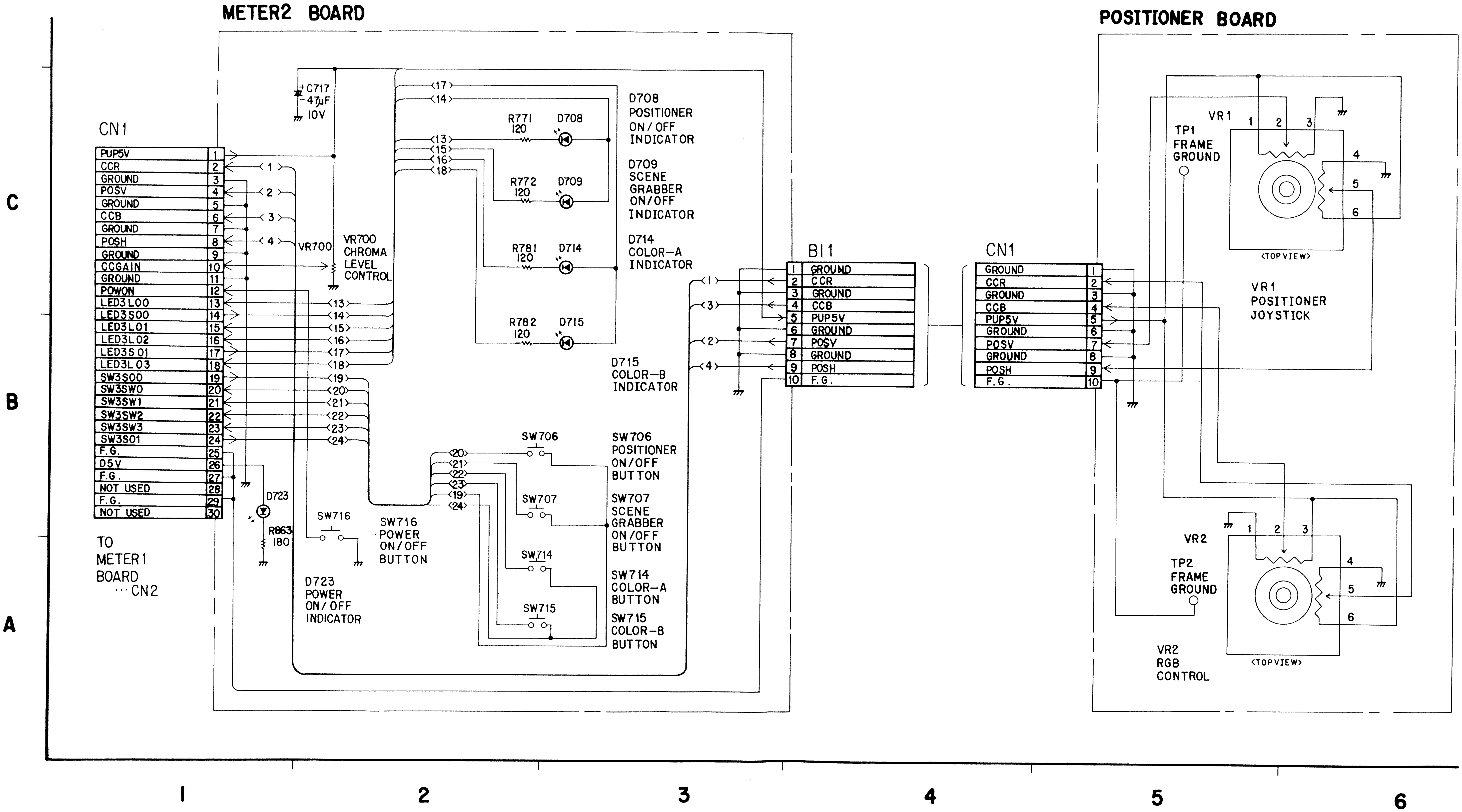
POWER BOARD

IC1	B2	Q1	B2	Q8	B4	D1	C2	D6	A4	D11	B2
IC2	C4	Q2	C4	Q9	B4	D2	B3	D7	C4	D12	B3
IC3	C4	Q3	C4	Q10	B4	D3	B2	D8	A2		
IC4	B4	Q6	B4	Q11	A4	D4	B2	D9	B4		
IC5	A4	Q7	B4			D5	B3	D10	B4		

PRODUCT SAFETY NOTICE

COMPONENT IDENTIFIED WITH THE "⚠" MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN SERVICING ANY OF THESE COMPONENTS, IT IS ESSENTIAL THAT ONLY MANUFACTURE'S SPECIFIED PARTS BE USED.

SCHEMATIC DIAGRAM OF METER-2 BOARD

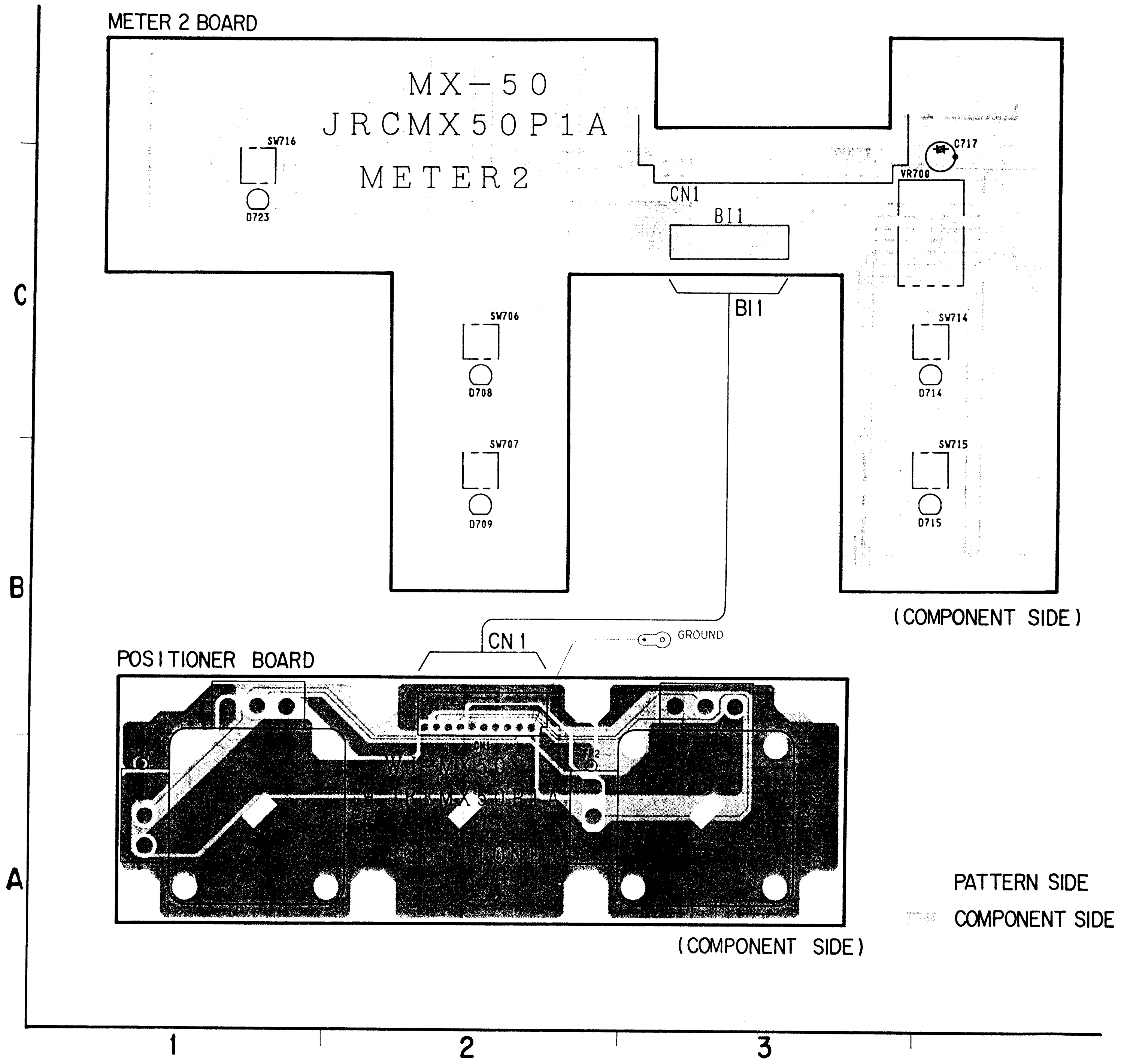

METER2 BOARD
POSITIONER BOARD
CN1
PUP5V 1
CCR 2
GROUND 3
POSV 4
GROUND 5
CCB 6
GROUND 7
POSH 8
GROUND 9
CCGAIN 10
GROUND 11
POWON 12
LED3L00 13
LED3S00 14
LED3L01 15
LED3L02 16
LED3S01 17
LED3L03 18
SW3S00 19
SW3SW0 20
SW3SW1 21
SW3SW2 22
SW3SW3 23
SW3S01 24
F.G. 25
D5V 26
F.G. 27
NOT USED 28
F.G. 29
NOT USED 30
TO METER1 BOARD ···CN2
C717 47μF 10V
VR700
VR700 CHROMA LEVEL CONTROL
R771 120
D708
R772 120
D709
R781 120
D714
R782 120
D715
D708 POSITIONER ON/OFF INDICATOR
D709 SCENE GRABBER ON/OFF INDICATOR
D714 COLOR-A INDICATOR
D715 COLOR-B INDICATOR
D723
R863 180
D723 POWER ON/OFF INDICATOR
SW716
SW716 POWER ON/OFF BUTTON
SW706
SW707
SW714
SW715
SW706 POSITIONER ON/OFF BUTTON
SW707 SCENE GRABBER ON/OFF BUTTON
SW714 COLOR-A BUTTON
SW715 COLOR-B BUTTON
BI1
1 GROUND
2 CCR
3 GROUND
4 CCB
5 PUP5V
6 GROUND
7 POSV
8 GROUND
9 POSH
10 F.G.
CN1
GROUND 1
CCR 2
GROUND 3
CCB 4
PUP5V 5
GROUND 6
POSV 7
GROUND 8
POSH 9
F.G. 10
VR1
TP1 FRAME GROUND
1 2 3 4 5 6
<TOP VIEW>
VR1 POSITIONER JOYSTICK
VR2
TP2 FRAME GROUND
<TOP VIEW>
VR2 RGB CONTROL
C
B
A
1
2
3
4
5
6

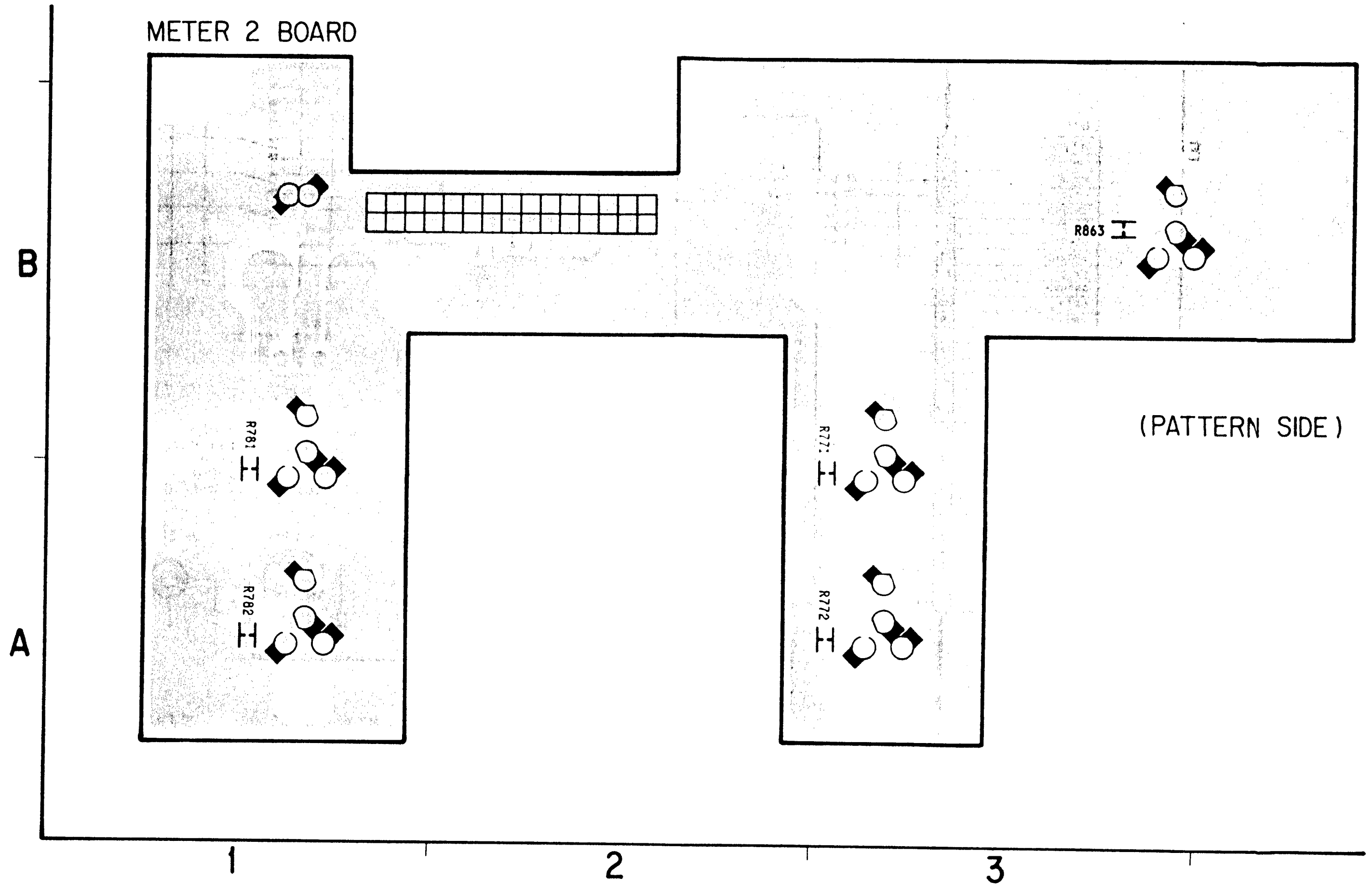
<Index>

METER 2 BOARD	
D708	C3
D709	C3
D714	C3
D715	C3
D723	B1

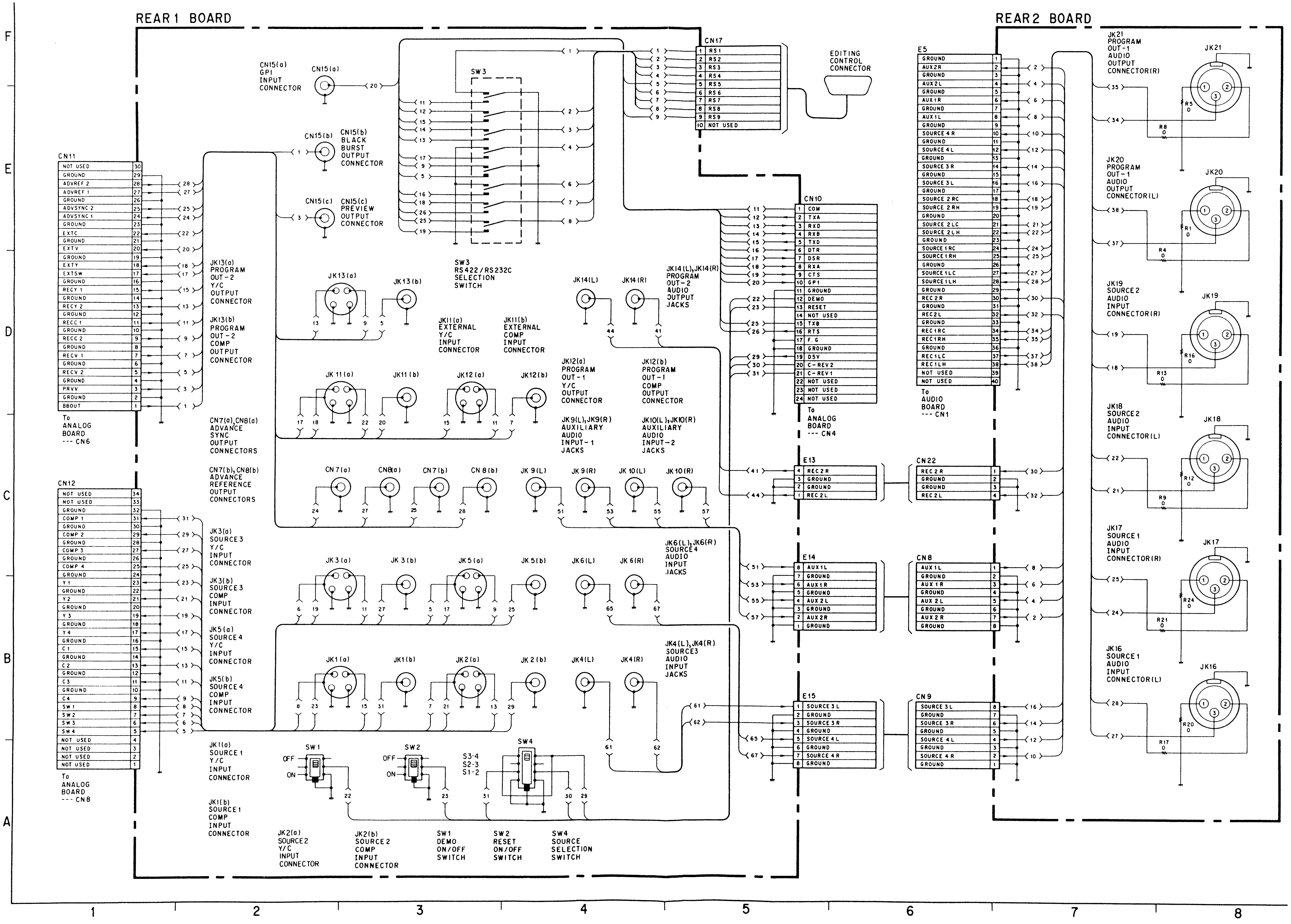
http://www.manualscenter.com

CONDUCTOR VIEW OF METER-2 BOARD

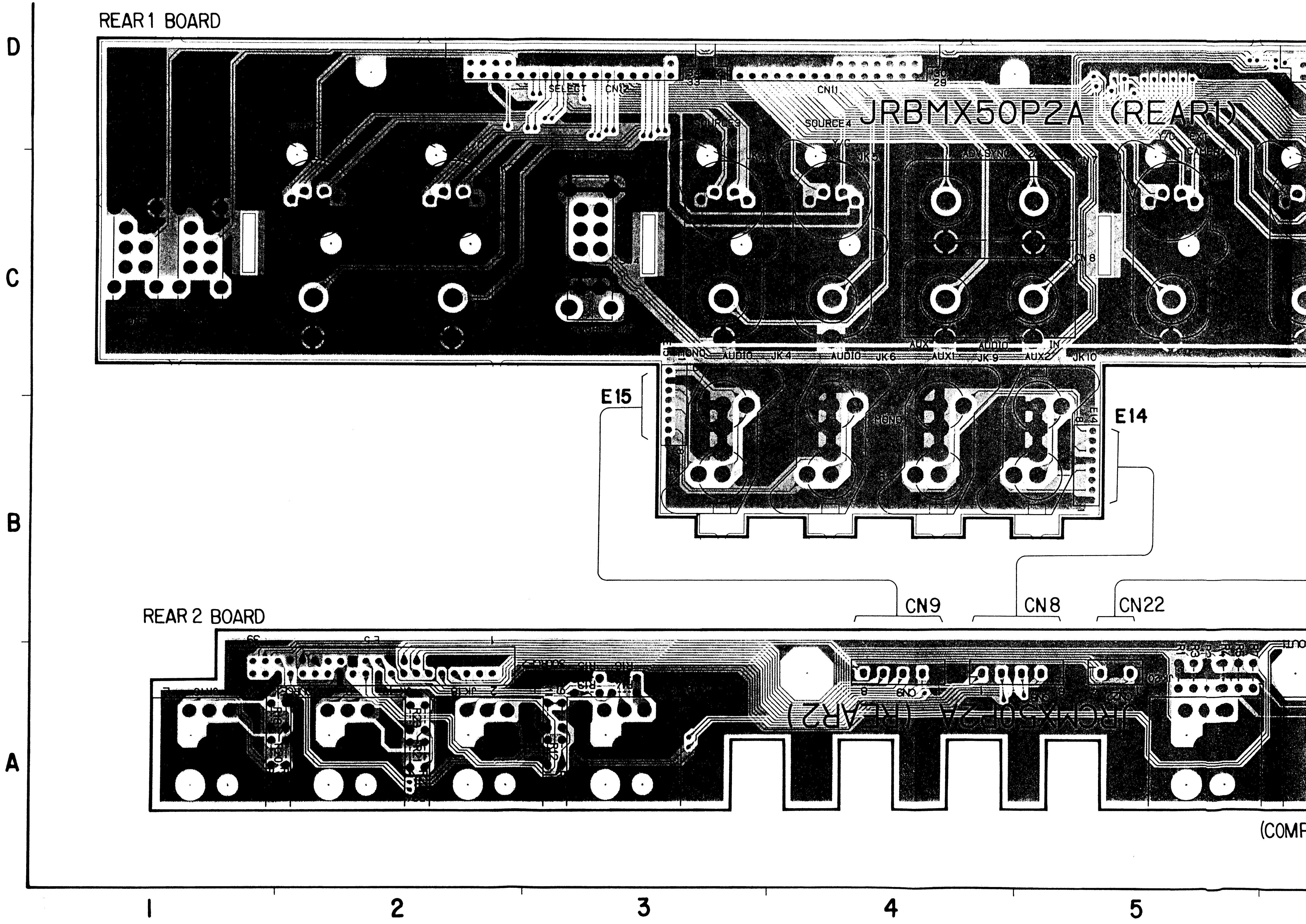

METER 2 BOARD
MX−50
JRCMX50P1A
METER2
SW716
D723
CN1
BI1
C717
VR700
SW706
D708
SW707
D709
SW714
D714
SW715
D715
BI1
(COMPONENT SIDE)
CN 1
GROUND
POSITIONER BOARD
(COMPONENT SIDE)
PATTERN SIDE
COMPONENT SIDE
C
B
A
1
2
3


METER 2 BOARD
R863
R781
R782
R771
R772
(PATTERN SIDE)
B
A
1
2
3

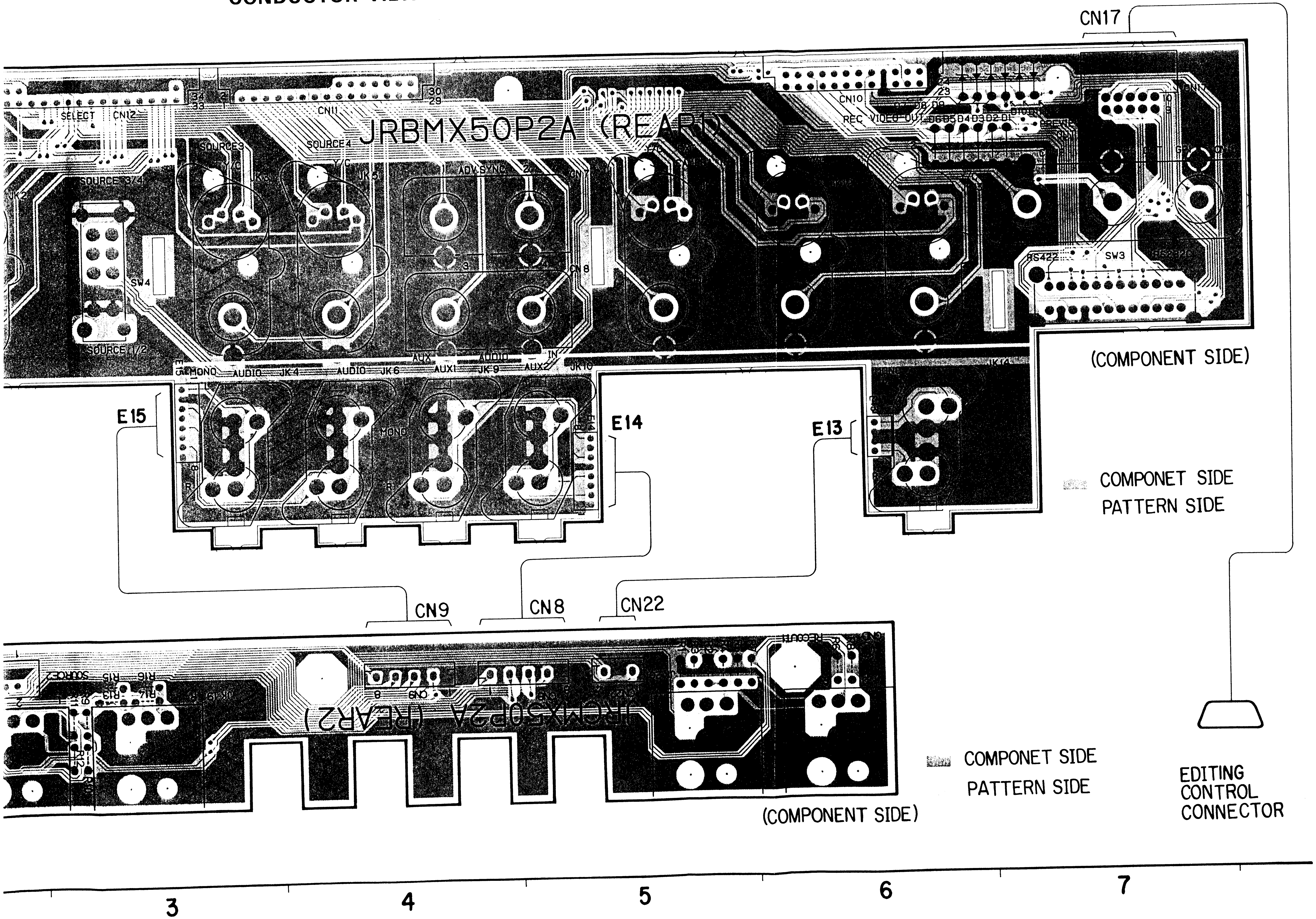
SCHEMATIC DIAGRAM OF REAR BOARD


REAR 1 BOARD
REAR2 BOARD
F
E
D
C
B
A
1
2
3
4
5
6
7
8
CN11
NOT USED 30
GROUND 29
ADVREF 2 28
ADVREF 1 27
GROUND 26
ADVSYNC 2 25
ADVSYNC 1 24
GROUND 23
EXTC 22
GROUND 21
EXTV 20
GROUND 19
EXTY 18
EXTSW 17
GROUND 16
RECY 1 15
GROUND 14
RECY 2 13
GROUND 12
RECC 1 11
GROUND 10
RECC 2 9
GROUND 8
RECV 1 7
GROUND 6
RECV 2 5
GROUND 4
PRVV 3
GROUND 2
BBOUT 1
To ANALOG BOARD --- CN6
CN12
NOT USED 34
NOT USED 33
GROUND 32
COMP 1 31
GROUND 30
COMP 2 29
GROUND 28
COMP 3 27
GROUND 26
COMP 4 25
GROUND 24
Y 1 23
GROUND 22
Y 2 21
GROUND 20
Y 3 19
GROUND 18
Y 4 17
GROUND 16
C 1 15
GROUND 14
C 2 13
GROUND 12
C 3 11
GROUND 10
C 4 9
SW 1 8
SW 2 7
SW 3 6
SW 4 5
NOT USED 4
NOT USED 3
NOT USED 2
NOT USED 1
To ANALOG BOARD --- CN8
CN15(a) GPI INPUT CONNECTOR
CN15(a)
CN15(b)
CN15(b) BLACK BURST OUTPUT CONNECTOR
CN15(c)
CN15(c) PREVIEW OUTPUT CONNECTOR
SW3
SW3 RS422/RS232C SELECTION SWITCH
CN17
1 RS1
2 RS2
3 RS3
4 RS4
5 RS5
6 RS6
7 RS7
8 RS8
9 RS9
10 NOT USED
EDITING CONTROL CONNECTOR
CN10
1 COM
2 TXA
3 RXD
4 RXB
5 TXD
6 DTR
7 DSR
8 RXA
9 CTS
10 GP1
11 GROUND
12 DEMO
13 RESET
14 NOT USED
15 TXB
16 RTS
17 F. G
18 GROUND
19 D5V
20 C-REV2
21 C-REV1
22 NOT USED
23 NOT USED
24 NOT USED
To ANALOG BOARD --- CN4
JK13(a) PROGRAM OUT-2 Y/C OUTPUT CONNECTOR
JK13(b) PROGRAM OUT-2 COMP OUTPUT CONNECTOR
JK13(a)
JK13(b)
JK11(a) EXTERNAL Y/C INPUT CONNECTOR
JK11(b) EXTERNAL COMP INPUT CONNECTOR
JK14(L)
JK14(R)
JK14(L),JK14(R) PROGRAM OUT-2 AUDIO OUTPUT JACKS
JK11(a)
JK11(b)
JK12(a)
JK12(b)
JK12(a) PROGRAM OUT-1 Y/C OUTPUT CONNECTOR
JK12(b) PROGRAM OUT-1 COMP OUTPUT CONNECTOR
CN7(a),CN8(a) ADVANCE SYNC OUTPUT CONNECTORS
CN7(b),CN8(b) ADVANCE REFERENCE OUTPUT CONNECTORS
JK9(L),JK9(R) AUXILIARY AUDIO INPUT-1 JACKS
JK10(L),JK10(R) AUXILIARY AUDIO INPUT-2 JACKS
CN7(a)
CN8(a)
CN7(b)
CN8(b)
JK9(L)
JK9(R)
JK10(L)
JK10(R)
JK3(a) SOURCE3 Y/C INPUT CONNECTOR
JK3(b) SOURCE3 COMP INPUT CONNECTOR
JK5(a) SOURCE4 Y/C INPUT CONNECTOR
JK5(b) SOURCE4 COMP INPUT CONNECTOR
JK3(a)
JK3(b)
JK5(a)
JK5(b)
JK6(L)
JK6(R)
JK6(L),JK6(R) SOURCE4 AUDIO INPUT JACKS
JK1(a)
JK1(b)
JK2(a)
JK2(b)
JK4(L)
JK4(R)
JK4(L),JK4(R) SOURCE3 AUDIO INPUT JACKS
JK1(a) SOURCE1 Y/C INPUT CONNECTOR
JK1(b) SOURCE1 COMP INPUT CONNECTOR
JK2(a) SOURCE2 Y/C INPUT CONNECTOR
JK2(b) SOURCE2 COMP INPUT CONNECTOR
SW1
SW2
SW4
OFF
ON
S3-4
S2-3
S1-2
SW1 DEMO ON/OFF SWITCH
SW2 RESET ON/OFF SWITCH
SW4 SOURCE SELECTION SWITCH
E13
4 REC2R
3 GROUND
2 GROUND
1 REC2L
E14
8 AUX1L
7 GROUND
6 AUX1R
5 GROUND
4 AUX2L
3 GROUND
2 AUX2R
1 GROUND
E15
1 SOURCE 3L
2 GROUND
3 SOURCE 3R
4 GROUND
5 SOURCE 4L
6 GROUND
7 SOURCE 4R
8 GROUND
E5
GROUND 1
AUX2R 2
GROUND 3
AUX2L 4
GROUND 5
AUX1R 6
GROUND 7
AUX1L 8
GROUND 9
SOURCE 4R 10
GROUND 11
SOURCE 4L 12
GROUND 13
SOURCE 3R 14
GROUND 15
SOURCE 3L 16
GROUND 17
SOURCE 2RC 18
SOURCE 2RH 19
GROUND 20
SOURCE 2LC 21
SOURCE 2LH 22
GROUND 23
SOURCE 1RC 24
SOURCE 1RH 25
GROUND 26
SOURCE 1LC 27
SOURCE 1LH 28
GROUND 29
REC2R 30
GROUND 31
REC2L 32
GROUND 33
REC1RC 34
REC1RH 35
GROUND 36
REC1LC 37
REC1LH 38
NOT USED 39
NOT USED 40
To AUDIO BOARD --- CN1
CN22
REC2R 1
GROUND 2
GROUND 3
REC2L 4
CN8
AUX1L 1
GROUND 2
AUX1R 3
GROUND 4
AUX2L 5
GROUND 6
AUX2R 7
GROUND 8
CN9
SOURCE 3L 8
GROUND 7
SOURCE 3R 6
GROUND 5
SOURCE 4L 4
GROUND 3
SOURCE 4R 2
GROUND 1
JK21 PROGRAM OUT-1 AUDIO OUTPUT CONNECTOR(R)
JK21
JK20 PROGRAM OUT-1 AUDIO OUTPUT CONNECTOR(L)
JK20
JK19 SOURCE2 AUDIO INPUT CONNECTOR(R)
JK19
JK18 SOURCE2 AUDIO INPUT CONNECTOR(L)
JK18
JK17 SOURCE1 AUDIO INPUT CONNECTOR(R)
JK17
JK16 SOURCE1 AUDIO INPUT CONNECTOR(L)
JK16
R5 0
R8 0
R1 0
R4 0
R16 0
R13 0
R12 0
R9 0
R24 0
R21 0
R20 0
R17 0

CONDUCTOR VIEW OF REAR BOARD


REAR 1 BOARD
JRBMX50P2A (REAR1)
SELECT
CN12
CN11
SOURCE 4
JK5
JK4
JK6
JK9
JK10
MONO
AUDIO
AUX
AUX1
AUX2
IN
E15
E14
CN9
CN8
CN22
REAR 2 BOARD
JRCMX50P2A (REAR2)
(COMP
D
C
B
A
1
2
3
4
5

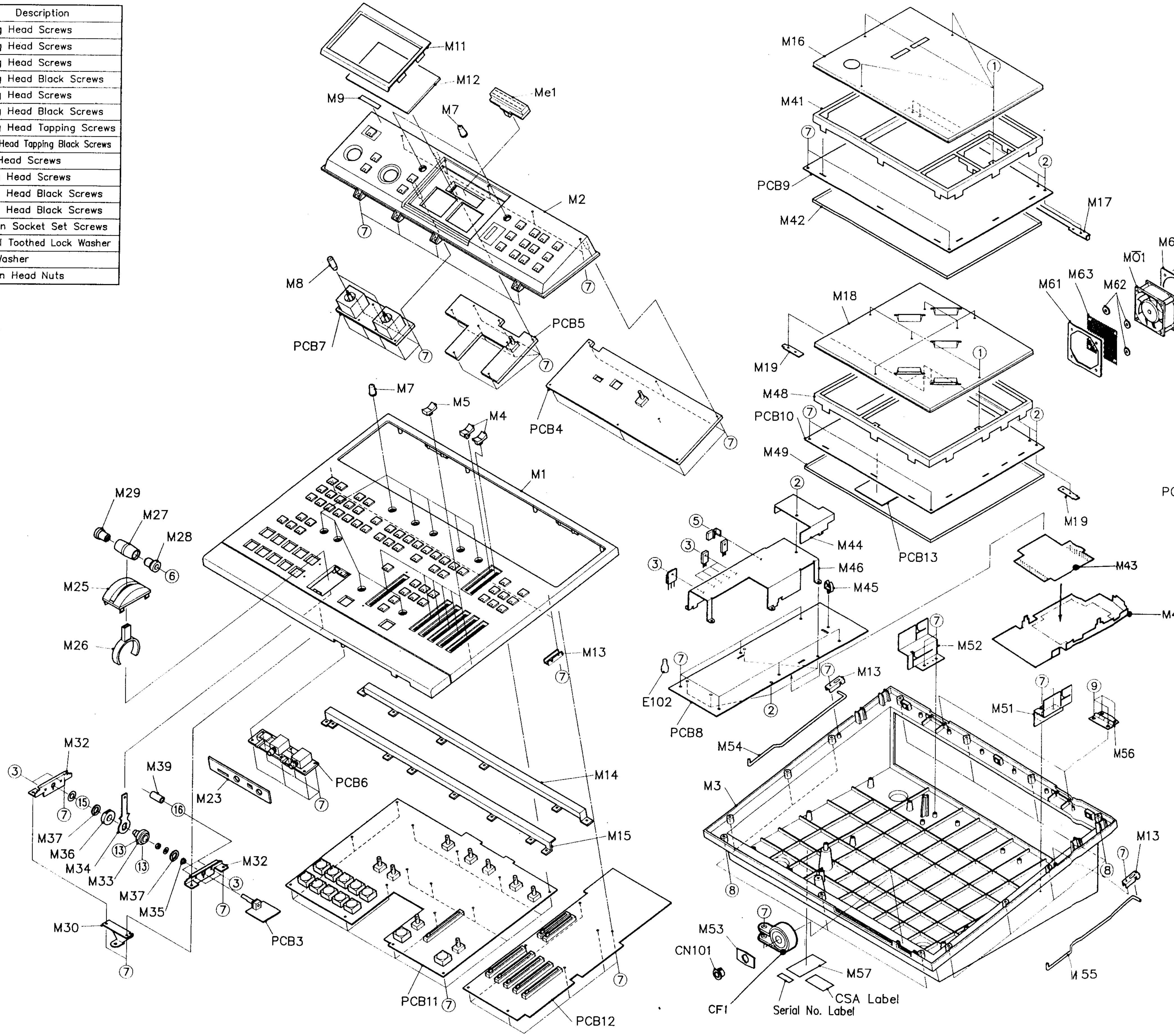
CONDUCTOR VIEW OF REAR BOARD


CN17
JRBMX50P2A (REAR1)
SELECT
CN12
CN11
CN10
REC
VIDEO OUT
D6 D5 D4 D3 D2 D1
D8 D9
D10
PREVIEW
SOURCE3
SOURCE4
SOURCE 3/4
SOURCE 1/2
ADV.SYNC
JK5
JK7
CN 8
SW4
RS422
SW3
RS232C
MONO
AUDIO
JK 4
JK 6
AUX
AUX1
AUDIO
JK 9
AUX2
IN
JK10
JK14
(COMPONENT SIDE)
E 15
E14
E13
COMPONET SIDE
PATTERN SIDE
CN9
CN8
CN22
JRBMX50P2A (REAR2)
REC OUT
(COMPONENT SIDE)
COMPONET SIDE
PATTERN SIDE
EDITING
CONTROL
CONNECTOR
3
4
5
6
7

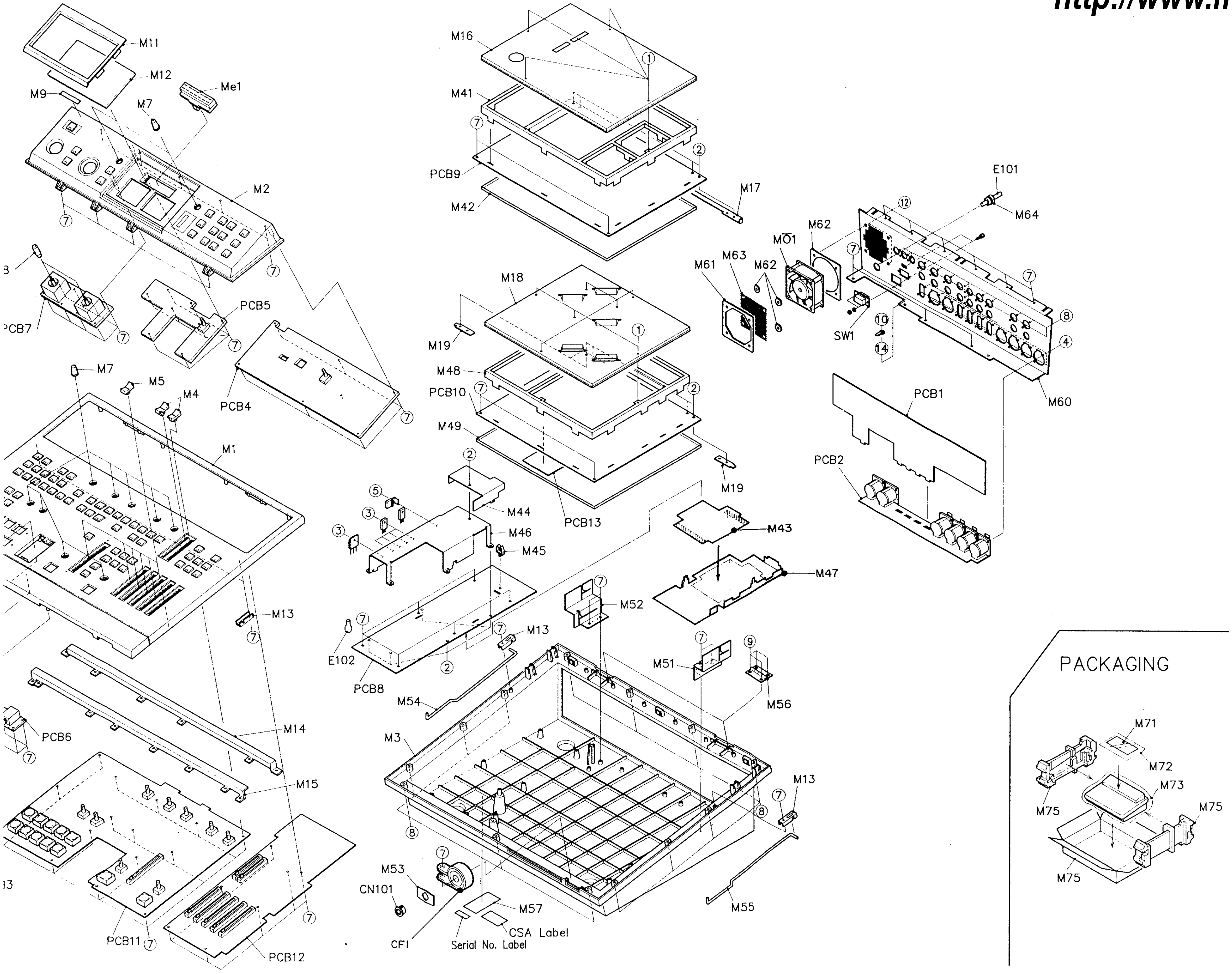
EXPLODED VIEW

○ Numbers show screws

No.	Screws	Description
①	XSB26+6FX	Binding Head Screws
②	XSB3+6FX	Binding Head Screws
③	XSB3+8FX	Binding Head Screws
④	XSB3+8FXK	Binding Head Black Screws
⑤	XSB3+12FX	Binding Head Screws
⑥	XSB3+14FXK	Binding Head Black Screws
⑦	XTB3+10CFX	Binding Head Tapping Screws
⑧	XTB3+10CFXK	Binding Head Tapping Black Screws
⑨	XTS3+10CFX	Flush Head Screws
⑩	XSB4+6FX	Binding Head Screws
⑪	XSB4+8FXK	Binding Head Black Screws
⑫	XSB4+35FXK	Binding Head Black Screws
⑬	XXE26D8FXK	Hexagon Socket Set Screws
⑭	XWC4BFX	External Toothed Lock Washer
⑮	W-10	Wave Washer
⑯	ASB-320	Hexagon Head Nuts


M11
M12
Me1
M9
M7
M2
M8
PCB7
PCB5
PCB4
M7
M5
M4
M1
M29
M27
M28
M25
M26
M13
M32
M39
M23
PCB6
M14
M15
M37
M36
M34
M33
M37
M35
M32
M30
PCB3
PCB11
PCB12
M16
M41
PCB9
M42
M17
M18
M61
M63
M62
M01
M19
M48
PCB10
M49
M19
PCB13
M44
M46
M45
M43
M52
E102
M13
PCB8
M51
M56
M54
M3
M13
M53
CN101
CF1
M57
Serial No. Label
CSA Label
M 55
①
②
③
⑤
⑥
⑦
⑧
⑨
⑬
⑮
⑯

EXPLODED VIEW


M11
M12
M9
Me1
M7
M2
⑦
PCB7
PCB5
PCB4
M5
M4
M1
M13
PCB6
M14
M15
PCB11
PCB12
M16
①
M41
PCB9
M42
②
M17
M18
M19
M48
PCB10
M49
PCB13
M44
M46
M45
⑤
③
E102
PCB8
M54
M3
⑧
M53
CN101
CF1
M57
CSA Label
Serial No. Label
M43
M47
M52
M51
⑨
M56
M55
E101
M64
⑫
M62
M01
M61
M63
SW1
⑩
⑭
④
M60
PCB1
PCB2
PACKAGING
M71
M72
M73
M75

REPLACEMENT PARTS LIST

Important Notice

1. Components identified by "⚠" mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
2. RTL : Retention Time Limited

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
MO1	YWFBA06A12L	DC Motor
Me1	YWLI1244	Level Meter Unit
CF1	YWTRCN16816	Filter
F101 ⚠	XBA2C25ET0A	Current Fuse 2.5A 250V
E101 ⚠	YWACL450/A	AC Power Cord for WJ-MX50/A
	YWGTBS2R5B	AC Power Cord for WJ-MX50/B
	YWACJ450/G	AC Power Cord for WJ-MX50/G
E102	YFCD20ACCAP	Insulator Cap
CN101	YWD0111N618	10-pin Title Connector
M1	YWV0MB0112AN	Upper Cover Assy
M2	YWV0MB0113AN	Meter Case Assy
M3	YWV9AA0781AN	Mechanical Assy
M4	YWV5RA0371A3	Slide VR Knob A
M5	YWV5RB0335A3	Slide VR Knob B
M7	YWV5RA0372A3	VR Knob
M8	YWV5RA0334A3	Knob
M9	YWV7PA0093A3	Badge
M11	YWV5EA1153A2	Cover
M12	YWV5WA1396A4	Panel
M13	YWV2SA2284A4	Mounting Angle
M14	YWV3BA0101A2	Supporting Angle
M15	YWV3BA0102A2	Supporting Angle
M16	YWV2HA1042A2	Shield Parts
M17	YWV2SA2280A3	Mounting Angle
M18	YWV2HA1043A2	Shield Parts
M19	YWV2SA2281A4	Mounting Angle
M23	YWV5WA1397A3	Panel
M25	YWV5EA1150A3	Fader Cover
M26	YWV5EA1151A3	Cover
M27	YWV5JA0082A3	Grip
M28	YWV5GA0128A4	Fader Cap A
M29	YWV5GA0129A4	Fader Cap B
M30	YWV2SA2303A4	Mounting Angle
M32	YWV2KA0778A4	Chassis
M33	YWV4HA0192B3	Fader Shaft
M34	YWV4RA0103A4	Lever
M35	YWV2NA0399A4	Spacer
M36	YWV1FA0074A4	Nut
M37	YWV1KA0151A4	Washer
M38	YWV1KA0152A4	Washer
M39	YWV5GA0130A4	Cap
M44	YWV2PA0529A3	Insulator
M45	YWUAMS11V0	Cord Clamp
M51	YWV2SA2278A3	Mounting Angle
M52	YWV2SA2279A3	Mounting Angle
M53	YWV5WA1398A4	Title Panel
M54	YWV2SA2282A4	Mounting Angle
M55	YWV2SA2283A4	Mounting Angle
M56	YWTHTMN086	Hinge
M57 ⚠	YWV7QA2802A4	Main Label for WJ-MX50/A
	YWV7QA2809A4	Main Label for WJ-MX50/B
	YWV7QA2810A4	Main Label for WJ-MX50/G
M60	YWV5EA1168A1	Rear Panel
M61	YWV3BA0091A4	Supporting Angle
M62	YWV2NA0400A4	Spacer(X2)
M63	YWV5SA0148A4	Net
M64	YWSR6W1	Cord Clamp

REAR - 1 BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB1	YWJRAMX50P2A	Printed Board
SW1,2	YFSSB022L6NP	Slide Switch
SW3	YWSSSP82NL6	Slide Switch
SW4	YWSSB02332BS	Slide Switch
CN7,8	YWP2200B	Connector
CN10	YWF795P024LA	24-pin Connector
CN11	YWF795P030LA	30-pin Connector
CN12	YWF795P034LA	34-pin Connector
CN15	YWP2195	BNC Connector
CN17	YW6091007	10-pin Connector
JK1-3	YWB0096	BNC Connector Jac
JK4	YWT6575AABA	2-pin Jack
JK5	YWB0096	BNC Connector Jac
JK6,9	YWT6575AABA	2-pin Jack
JK10	YWT6575AABA	2-pin Jack
JK11-13	YWB0096	BNC Connector Jac
JK14	YWT6575AABA	2-pin Jack

REAR-2 BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB2	YWJRAMX50P2A	Printed Board
CN8,9	YW530140810	Connector
CN22	YW530140410	Connector
JK16-19	YWAF3LRPCT	Jack
JK20,21	YWAF3LSPCRT	Jack
J1,4	ERDS2TC0	Jumper Resistor
J5	ERDS2TC0	Jumper Resistor
J8,9	ERDS2TC0	Jumper Resistor
J12,13	ERDS2TC0	Jumper Resistor
J16,17	ERDS2TC0	Jumper Resistor
J20,21	ERDS2TC0	Jumper Resistor
J24	ERDS2TC0	Jumper Resistor

WIPE·BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB3	YWJRZMX50P6A	Printed Board
VR1	EWVAAK001B15	Variable Resistor 100K ohms

METER - 1 BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB4 (RTL)	YWJKBMX50P1A	Printed Circuit Board Assy	
IC700	M51944AML1	IC	
IC701	YWUPD71055GB	LSI	
IC704-714	YWPD4511BAGS	IC	
Q702	TA78	Transistor	
	2SA1560	Transistor	
Q703	MSB709-QRS	Transistor	
	TA78	Transistor	
Q704	2SA1560	Transistor	
Q705	MSB709-QRS	Transistor	
Q706,707	MSD601-QRS	Transistor	
Q708	2SA1560	Transistor	
D700,701	YWDAN212K	Diode	
D702-707	YWSLR34VR3FM	Diode	
D710-713	YWSLR34VR3FM	Diode	
D717,718	YWLB403VN	Diode	
D719,721	YWLB403MN	Diode	
D722	YWLD010VW	Diode	
D724	YWRB421D	Diode	
R700-711	YF2116104JT	Carbon	100K ohms 1/16W
R712-719	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R720-723	YF2116272JT	Carbon	2.7K ohms 1/16W
R724-727	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R728-735	YF2116272JT	Carbon	2.7K ohms 1/16W
R736	YF2116220JT	Carbon	22 ohms 1/16W
R737	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R738	YF2116471JT	Carbon	470 ohms 1/16W
R744	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R745	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R746	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R747,748	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R750-754	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R755-764	YF2116121JT	Carbon	120 ohms 1/16W
R765-769	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R770,773	YF2116121JT	Carbon	120 ohms 1/16W
R774-780	YF2116121JT	Carbon	120 ohms 1/16W
R783,784	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R785-861	YF2116301JT	Carbon	300 ohms 1/16W
R862	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R864,865	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R866-873	YF2116101JT	Carbon	100 ohms 1/16W
R874,875	ERJ6GEYJ103	Carbon	10K ohms 1/16W
VR701	EVJ02AF20B15	Variable Resistor	100K ohms
C700	ECEA0JKA221	Electrolytic	220 µF 6.3V
C701	YF400104FZT	Ceramic	0.1 µF
C702	YWS21A106T	Electrolytic	10 µF 10V
C703	YF400104FZT	Ceramic	0.1 µF
C704-716	ECEA1AKS470	Electrolytic	47 µF 10V
C718	ECEA0JKA221	Electrolytic	220 µF 6.3V
C719	ECEA0JKS101	Electrolytic	100 µF 6.3V
C720	ECQM1H334KZ	Plastic	0.33 µF
L700	ELJFA100KF	Coil	10 µH
L701	ELESE2R2KA	Coil	2.2 µH
L702,703	ELC08D082	Coil	
SW700-705	EVQQTU05R	Push Switch	
SW708-713	EVQQTU05R	Push Switch	
CN1	YWF795P040LA	Connector	
CN2	YWF795P030LA	Connector	
CN3	YW530150310	Connector	
CN4	YWIC302003S4	Socket	

METER-2 BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB5 (RTL)	YWJKBMX50P1A	Printed Circuit Board Assy	
D708,709	YWSLR34VR3FM	Diode	
D714,715	YWSLR34VR3FM	Diode	
D723	YWSLR34VR3FM	Diode	
R771,772	YF2116121JT	Carbon	120 ohms 1/16W
R781,782	YF2116121JT	Carbon	120 ohms 1/16W
R863	YF2116181JT	Carbon	180 ohms 1/16W
VR700	EVJ02AF20B15	Variable Resistor	100K ohms
C717	ECEA1AKS470	Electrolytic	47 µF 10V
SW706,707	EVQQTU05R	Push Switch	
SW714-716	EVQQTU05R	Push Switch	
CN1	YWF795P030LA	Connector	

REF.NO.	PART NO.	DESCRIPTION
JACK BOARD		
PCB6 (RTL)	YWJKBMX50P1A	Printed Circuit Board Assy
VR8	YWRS15H250KA	Variable Resistor 250K ohms
SW1	YWSSSP22NL9	Slide Switch
JK1	YWLJ23083090	Jack
JK2	YWLJ23083020	Jack
POSI BOARD		
PCB7 (RTL)	YWJKEMX50P1A	Printed Circuit Board Assy
VR1,2	YWRKJXB100KB	Variable Resistor 100K ohms
CN1	YW530151010	Connector
TP1,2	YW32BM10	Test-pin
POWER BOARD		
PCB8 (RTL)	YWJKZMX50P1A	Printed Circuit Board Assy
IC1	YWFA5304P	IC
IC2	YWUPC24M12HF	IC
IC3	YWSI3122V	IC
IC4	YWUPC24M12HF	IC
IC5	YWTA76431S	IC
Q1	2SK897	Transistor
Q2	2SB953A-PQ	Transistor
Q3	2SB641-QR	Transistor
Q6	2SB642-QRS	Transistor
Q7,8	2SD1752	Transistor
Q9	2SD636-QRS	Transistor
Q10	2SD973-RS	Transistor
Q11	2SD636-QRS	Transistor
D1	YWRBV406	Diode
D2	RU1P	Diode
D3	YWERA9102	Diode
D4	MA165	Diode
D5	YWERA9102	Diode
D6	YWPC111	Diode
D7	YWESAB85M009	Diode
D8	MA165	Diode
D9	ESAC82M004	Diode
D10	YWERA84009	Diode
D11	RD5.1JB2	Diode
D12	YWEQA0325	Diode
TH1	NTH18D6R0LA	Thermistor
VS1	ERZC07DK471U	Znr
R1	ERC12ZGK105	Solid Resistor
R2	ERF5TK1R5	Wire Wound 1.5 ohms 5W

REF.NO.	PART NO.	DESCRIPTION
R3	ERD50FJ104	Carbon 100K ohms 1/2W
R5	ERG5SJ153	Metal 15K ohms 5W
R7	ERG1SJ122	Metal 1.2K ohms 1W
R8	ERDS2TJ104	Carbon 100K ohms 1/4W
R9	ERDS2TJ105	Carbon 1M ohms 1/4W
R10	ERDS2TJ222	Carbon 2.2K ohms 1/4W
R11	ERDS2TJ220	Carbon 22 ohms 1/4W
R12	ERDS2TJ151	Carbon 150 ohms 1/4W
R13	ERDS2TJ823	Carbon 82K ohms 1/4W
R14	ERDS2TJ822	Carbon 8.2K ohms 1/4W
R15	ERX2SJR22	Metal 0.22 ohms
R16	ERC12ZGM156	Solid Resistor 15M ohms 1/2W
R19	ERDS2TJ123	Carbon 12K ohms 1/4W
R20	ERDS2TJ100	Carbon 10 ohms 1/4W
R22	ERDS2TJ471	Carbon 470 ohms 1/4W
R23	ERDS2TJ122	Carbon 1.2K ohms 1/4W
R24	ERG1SJ470	Metal 47 ohms 1W
R26	ERDS2TJ471	Carbon 470 ohms 1/4W
R27	ERDS2TJ104	Carbon 100K ohms 1/4W
R28	ERDS2TJ333	Carbon 33K ohms 1/4W
R29	ERDS2TJ472	Carbon 4.7K ohms 1/4W
R31	ERDS2TJ222	Carbon 2.2K ohms 1/4W
R32	ERDS2TJ333	Carbon 33K ohms 1/4W
R33	ERDS2TJ683	Carbon 68K ohms 1/4W
R34	ERDS2TJ101	Carbon 100 ohms 1/4W
R35	ERDS2TJ102	Carbon 1Kohms 1/4W
R36,37	ER0S2CKF6801	Metal 6.8K ohms 1/4W
R38	ERDS2TJ472	Carbon 4.7K ohms 1/4W
R39	ERDS2TJ4R7	Carbon 4.7ohms 1/4W
VR1	YFH0621A2R2K	Variable Resistor 22K ohms
C1	ECQU2A224MV	Plastic 0.22 µF
C2-4	ECKDRS332ME	Ceramic 3300 pF
C5	ECQU2A224MV	Plastic 0.22 µF
C6,7	EC0S2DA471DA	Electrolytic 470 µF
C8	ECQE6103KZ	Plastic 0.01 µF
C9	ECKD3A101KBN	Ceramic 100 pF 1KV
C10,11	ECEA1HU2R2	Electrolytic 2.2µ F 50V
C12	ECQV1H104JZ	Plastic 0.1µ F 50V
C13	ECQP1H331JZ	Plastic 330 pF 50V
C14	ECQV1H473JZ	Plastic 0.047 µF 50V
C15	ECQB1H682JZ	Plastic 6800 pF
C16,17	ECKDRS332ME	Ceramic 3300 pF
C18	ECA1VFQ270	Electrolytic 27 µF
C20	ECA1CFQ471	Electrolytic 470 µF
C21	ECA1CFQ181B	Electrolytic 180 µF
C23,24	ECA1EFQ102	Electrolytic 1000 µF 25V
C25,26	ECQV1H104JZ	Plastic 0.1µ F 50V
C27	ECA1CFQ471	Electrolytic 470 µF 16V
C28-30	ECA1CFQ181B	Electrolytic 180 µF 16V
C31	ECA1CFQ471	Electrolytic 470 µF 16V
C32	ECQB1H103JZ	Plastic 0.01 µF 50V
C33-35	ECA1AFQ222	Electrolytic 2200 µF 10V
C36,37	ECA1AFQ122	Electrolytic 1200 µF 10V
C38-42	ECA1AFQ101	Electrolytic 100 µF 10V
C44	ECA1EFQ471	Electrolytic 470 µF 25V

REF.NO.	PART NO.	DESCRIPTION
C45,46	ECQV1H104JZ	Plastic 0.1 µF 50V
C47	ECA1CFQ181B	Electrolytic 180 µF 16V
C48	ECQV1H104JZ	Plastic 0.1 µF 50V
C49	ECKD3A101KBN	Ceramic 100 pF 1KV
C50	ECEA1HU100	Electrolytic 10 µF 50V
C51	ECQE6103KZ	Plastic 0.01 µF
L1,2	YWHL24682	Coil
L3,4	YFBL02RN2R62	Coil
L5	EL05SI330K	Coil 33 µH
L7-9	YWPC7330K	Coil 33 µH
L11,12	YWPC10220K	Coil 22 µH
L13-15	YWPC7330K	Coil 33 µH
L17,18	YFBL02RN2R62	Coil
T1 ⚠	ETS28K702A	Power Transformer
SW1	YWSEP2A01BBM	Seesaw Switch
CF6,10	YWBL02RN1R62	Filter
CF16,19	YWBL02RN1R62	Filter
F3,4 ⚠	SSFR500F002	Current Fuse 500mA
F5-12 ⚠	SSFR1.6A002	Current Fuse 1.6A
F13 ⚠	SSFR500F002	Current Fuse 500mA
CN1	YW53014-0210	-pin Connector
CN2	YW530140310	-pin Connector
CN3	YW530140610	-pin Connector
CN4	YW530140410	-pin Connector
CN5	YW530140510	-pin Connector
CN6	YW530140710	-pin Connector
E1,2	YWTM028B	Terminal
E4,5	S-N5057	Fuse Holder
E6-10	YWMA01	Terminal
E11-13	YW851248	Insulator
E14	YWM1748A	Holder
E15	YW45T01130L	Insulator
M45	YWUAMS11V0	Cord Clamp
M46	YWV7DA0328A2	Heat Sink

REF.NO.	PART NO.	DESCRIPTION
ANALOG BOARD		
PCB9 (RTL)	YWJKZMX50P2A	Printed Circuit Board Assy
IC1-4	MC74HC4052F	IC
IC5	YWNJM2246M	IC
IC6	YWNJM2233BM	IC
IC7	YWSC7SU04F	IC
IC10	YWMC141625FU	IC
IC13	YWSC7SU04F	IC
IC16	YWMC141625FU	IC
IC19	YWNJM2246M	IC
IC20	YWNJM2233BM	IC
IC21-23	YWSC7S08F	IC
IC24	YWSC7S08F	IC
IC25	YWM51271FP	IC
IC26	NJM78L05A	IC
IC27	NJM78L05A	IC
IC28	YWM51271FP	IC
IC32,33	YWSC7S08F	IC
IC34	YWNJM3403AM	IC
IC36	YWSC7S08F	IC
IC37	YWSC7S08F	IC
IC38	YWNJM3403AM	IC
IC40-42	YWSC7S08F	IC
IC45	YWNJM2246M	IC
IC46	YWLM1881M	IC
IC47	NJM319M	IC
IC48	YWSC7S08F	IC
IC49	YWSC7SU04F	IC
IC50	YWSC7S08F	IC
IC51	YWNJM2246M	IC
IC52	YWNJM2245M	IC
IC53	YWNJM2246M	IC
IC54	YWNJM2245M	IC
IC700	NJM78L05A	IC
IC701	YWNJM78M05FA	IC
IC702	YWMC74HC125F	IC
IC703	YWHA16103FPJ	IC
IC704	YWSC7SU04F	IC
IC705	YWMC74HC174F	IC
IC706,707	YWMC74HC541F	IC
IC708	YWHD6475368F	IC
IC709	-M51944AML1	IC
IC710,711	YWUPD71055GB	LSI
IC712	MC74HC4053F	IC
IC713	YWSN75179BPS	IC
IC714	YWMC145407F	IC
IC715	YWMC74HC174F	IC
IC716,717	YWMC74HC138F	IC
IC718	YWUPD4538BG	IC
IC719,720	YWSC7SU04F	IC
Q1-22	MSD601-QRS	Transistor

REF.NO.	PART NO.	DESCRIPTION
Q23	MSB709-QRS	Transistor
Q24	MSD601-QRS	Transistor
Q25	MSB709-QRS	Transistor
Q26-29	MSD601-QRS	Transistor
Q30	MSB709-QRS	Transistor
Q31	MSD601-QRS	Transistor
Q32	MSB709-QRS	Transistor
Q33,34	MSD601-QRS	Transistor
Q39-43	MSD601-QRS	Transistor
Q44	MSB709-QRS	Transistor
Q45	MSD601-QRS	Transistor
Q46	2SD1328-RS	Transistor
Q47-50	MSD601-QRS	Transistor
Q51	2SD1328-RS	Transistor
Q52-56	MSD601-QRS	Transistor
Q57	2SD1328-RS	Transistor
Q58-61	MSD601-QRS	Transistor
Q62	MSB709-QRS	Transistor
Q63	2SD1328-RS	Transistor
Q64-68	MSD601-QRS	Transistor
Q69	2SD1328-RS	Transistor
Q70-74	MSD601-QRS	Transistor
Q75	2SD1328-RS	Transistor
Q76	MSD601-QRS	Transistor
Q77	MSB709-QRS	Transistor
Q78	MSD601-QRS	Transistor
Q79	MSB709-QRS	Transistor
Q80	MSD601-QRS	Transistor
Q81,82	MSB709-QRS	Transistor
Q83	MSD601-QRS	Transistor
Q84	MSB709-QRS	Transistor
Q85	MSD601-QRS	Transistor
Q86	MSB709-QRS	Transistor
Q87-91	MSD601-QRS	Transistor
Q92	MSB709-QRS	Transistor
Q93	MSD601-QRS	Transistor
Q94-99	MSB709-QRS	Transistor
Q100	MSD601-QRS	Transistor
Q101	MSB709-QRS	Transistor
Q102	MSD601-QRS	Transistor
Q103	MSB709-QRS	Transistor
Q104-106	MSD601-QRS	Transistor
Q107	2SD1328-RS	Transistor
Q108	MSD601-QRS	Transistor
Q109,110	MSB709-QRS	Transistor
Q111	MSD601-QRS	Transistor
Q112	MSB709-QRS	Transistor
Q113	MSD601-QRS	Transistor
Q114,140	MSB709-QRS	Transistor
Q141	MSB709-QRS	Transistor
Q142	2SB642-QRS	Transistor
Q144-151	MSB709-QRS	Transistor
Q152-155	MSD601-QRS	Transistor
Q156	MSB709-QRS	Transistor
Q157	MSD601-QRS	Transistor
Q158	MSB709-QRS	Transistor
Q159	MSD601-QRS	Transistor
Q160	MSB709-QRS	Transistor
Q161-166	MSD601-QRS	Transistor
Q167	MSB709-QRS	Transistor
Q168	MSD601-QRS	Transistor
Q169	MSB709-QRS	Transistor
Q170	MSD601-QRS	Transistor
Q171	MSB709-QRS	Transistor
Q172	MSD601-QRS	Transistor
Q173	MSB709-QRS	Transistor
Q174,175	MSD601-QRS	Transistor
Q176-179	MSB709-QRS	Transistor
Q180-184	MSD601-QRS	Transistor
Q700	2SA886-QR	Transistor
Q701	MSB709-QRS	Transistor
Q703,704	2SA1560	Transistor
D1,2	YWDAN212K	Diode
D4-6	YWDAN212K	Diode
D700-702	YWRB421D	Diode
D703	YWDAN212K	Diode
D704	YWRD5.1MB2	Diode
D705	YWDAN212K	Diode
D706	YWRD5.1MB2	Diode
D707	YWDAN212K	Diode
D708	YWRD5.1MB2	Diode
D709	YWDAN212K	Diode
D710	YWRD5.1MB2	Diode
D711	YWDAN212K	Diode
D724	YWRB421D	Diode
R1-12	YF2116750JT	Carbon 75 ohms 1/16W
R13	YF2116393GT	Carbon 39K ohms 1/16W
R14	YF2116753JT	Carbon 75K ohms 1/16W
R15	YF2116122JT	Carbon 1.2K ohms 1/16W
R16	YF2116393GT	Carbon 39K ohms 1/16W
R17	YF2116753JT	Carbon 75K ohms 1/16W
R18	YF2116122JT	Carbon 1.2K ohms 1/16W
R19	YF2116393GT	Carbon 39K ohms 1/16W
R20	YF2116753JT	Carbon 75K ohms 1/16W
R21	YF2116122JT	Carbon 1.2K ohms 1/16W
R22	YF2116393GT	Carbon 39K ohms 1/16W
R23	YF2116753JT	Carbon 75K ohms 1/16W
R24	YF2116122JT	Carbon 1.2K ohms 1/16W
R25	YF2116393GT	Carbon 39K ohms 1/16W
R26	YF2116753JT	Carbon 75K ohms 1/16W
R27	YF2116122JT	Carbon 1.2K ohms 1/16W
R28	YF2116393GT	Carbon 39K ohms 1/16W
R29	YF2116753JT	Carbon 75K ohms 1/16W
R30	YF2116122JT	Carbon 1.2K ohms 1/16W
R31	YF2116393GT	Carbon 39K ohms 1/16W
R32	YF2116753JT	Carbon 75K ohms 1/16W
R33	YF2116122JT	Carbon 1.2K ohms 1/16W
R34	YF2116393GT	Carbon 39K ohms 1/16W
R35	YF2116753JT	Carbon 75K ohms 1/16W
R36	YF2116122JT	Carbon 1.2K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R37	YF2116393GT	Carbon	39K ohms 1/16W
R38	YF2116753JT	Carbon	75K ohms 1/16W
R39	YF2116122JT	Carbon	1.2K ohms 1/16W
R40	YF2116393GT	Carbon	39K ohms 1/16W
R41	YF2116753JT	Carbon	75K ohms 1/16W
R42	YF2116122JT	Carbon	1.2K ohms 1/16W
R43	YF2116393GT	Carbon	39K ohms 1/16W
R44	YF2116753JT	Carbon	75K ohms 1/16W
R45	YF2116122JT	Carbon	1.2K ohms 1/16W
R46	YF2116393GT	Carbon	39K ohms 1/16W
R47	YF2116753JT	Carbon	75K ohms 1/16W
R48	YF2116122JT	Carbon	1.2K ohms 1/16W
R49	YF2116202JT	Carbon	2K ohms 1/16W
R50	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R51	YF2116202JT	Carbon	2K ohms 1/16W
R52	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R53	YF2116202JT	Carbon	2K ohms 1/16W
R54	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R55	YF2116202JT	Carbon	2K ohms 1/16W
R56-60	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R61	YW2116182JT	Carbon	1.8K ohms 1/16W
R62-66	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R71-73	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R75	YF2116331JT	Carbon	330 ohms 1/16W
R76	YF2116392JT	Carbon	3.9K ohms 1/16W
R77	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R78	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R83,84	YF2116474JT	Carbon	470K ohms 1/16W
R85	YW2116105JT	Carbon	1M ohms 1/16W
R88,89	ERJ6GEY0R00	Carbon	1 ohms 1/10W
R91	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R92,93	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R94	YF2116202JT	Carbon	2K ohms 1/16W
R95	YF2116912GT	Carbon	9.1K ohms 1/16W
R96	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R97	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R98	YF2116332JT	Carbon	3.3K ohms 1/16W
R99	YF2116912GT	Carbon	9.1K ohms 1/16W
R100	YF2116754JT	Carbon	750K ohms 1/16W
R101-103	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R104	YF2116152JT	Carbon	1.5K ohms 1/16W
R105	YF2116122JT	Carbon	1.2K ohms 1/16W
R106,108	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R109	YF2116561JT	Carbon	560 ohms 1/16W
R110	YF2116392JT	Carbon	3.9K ohms 1/16W
R111	YW2116182JT	Carbon	1.8K ohms 1/16W
R112,113	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R114	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R115,116	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R117	YF2116202JT	Carbon	2K ohms 1/16W
R118	YF2116912GT	Carbon	9.1K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R119	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R120	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R121	YF2116332JT	Carbon	3.3K ohms 1/16W
R122	YW2116105JT	Carbon	1M ohms 1/16W
R125,126	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R128	YF2116912GT	Carbon	9.1K ohms 1/16W
R130,132	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R133	YF2116152JT	Carbon	1.5K ohms 1/16W
R134	YF2116122JT	Carbon	1.2K ohms 1/16W
R135,136	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R137	YF2116561JT	Carbon	560 ohms 1/16W
R139	YF2116392JT	Carbon	3.9K ohms 1/16W
R140,141	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R146-148	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R154,155	YF2116474JT	Carbon	470K ohms 1/16W
R156	YF2116331JT	Carbon	330 ohms 1/16W
R158	YF2116392JT	Carbon	3.9K ohms 1/16W
R159	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R160	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R161	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R163	YF2116393GT	Carbon	39K ohms 1/16W
R164	YF2116433GT	Carbon	43K ohms 1/16W
R165	YF2116391JT	Carbon	390 ohms 1/16W
R166	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R169	YF2116754JT	Carbon	750K ohms 1/16W
R170	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R171	YF2116752JT	Carbon	7.5K ohms 1/16W
R172	L311J103J332	Carbon	10K ohms
R173	YF2116202JT	Carbon	2K ohms 1/16W
R174	YF2116754JT	Carbon	750K ohms 1/16W
R175	YF2116512JT	Carbon	5.1K ohms 1/16W
R176	YF2116912GT	Carbon	9.1K ohms 1/16W
R177	YF2116183GT	Carbon	18K ohms 1/16W
R178	YW2116620JT	Carbon	62 ohms 1/16W
R179	YF2116151JT	Carbon	150 ohms 1/16W
R180	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R181,182	ERDS2TJ470	Carbon	47 ohms
R183	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R184	YF2116393GT	Carbon	39K ohms 1/16W
R185	YF2116433GT	Carbon	43K ohms 1/16W
R186	YF2116391JT	Carbon	390 ohms 1/16W
R187	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R189	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R192	YF2116754JT	Carbon	750K ohms 1/16W
R193	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R194	YF2116752JT	Carbon	7.5K ohms 1/16W
R195	L311J103J332	Carbon	10K ohms
R196	YF2116202JT	Carbon	2K ohms 1/16W
R197	YF2116754JT	Carbon	750K ohms 1/16W
R198	YF2116512JT	Carbon	5.1K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R199	YW2116620JT	Carbon	62 ohms 1/16W
R200	YF2116151JT	Carbon	150 ohms 1/16W
R201	YWR1220P512D	Metal	5.1K ohms
R202	YWR1220P162D	Carbon	1.6K ohms
R203	YWR1220P622D	Metal	6.2K ohms
R204	YWR1220P682D	Metal	6.8K ohms
R205,206	YWR1220P242D	Metal	2.4K ohms
R207	YWR1220P682D	Metal	6.8K ohms
R208-211	YF2116510JT	Carbon	51 ohms 1/16W
R212	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R213	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R214	YF2116181JT	Carbon	180 ohms 1/16W
R215	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R216	YF2116202JT	Carbon	2K ohms 1/16W
R217	YF2116912GT	Carbon	9.1K ohms 1/16W
R218	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R219	YF2116332JT	Carbon	3.3K ohms 1/16W
R220	YF2116511JT	Carbon	510 ohms 1/16W
R221	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R222	YF2116511JT	Carbon	510 ohms 1/16W
R223	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R224	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R225	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R226	YF2116331JT	Carbon	330 ohms 1/16W
R227	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R228	YF2116202JT	Carbon	2K ohms 1/16W
R229	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R230	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R231	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R232	YF2116332JT	Carbon	3.3K ohms 1/16W
R233	YF2116511JT	Carbon	510 ohms 1/16W
R234	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R235	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R236	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R237	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R238	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R239	YF2116181JT	Carbon	180 ohms 1/16W
R240	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R241	YF2116202JT	Carbon	2K ohms 1/16W
R242	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R243	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R244	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R245	YF2116332JT	Carbon	3.3K ohms 1/16W
R246	YF2116511JT	Carbon	510 ohms 1/16W
R247	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R248	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R249	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R250	YF2116332JT	Carbon	3.3K ohms 1/16W
R251	ERJ6GEYJ562	Carbon	5.6K ohms 1/16W
R252	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R253	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R254	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R255	YF2116181JT	Carbon	180 ohms 1/16W
R256	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R257	YF2116202JT	Carbon	2K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R258	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R259	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R260	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R261	YF2116332JT	Carbon	3.3K ohms 1/16W
R262	YF2116511JT	Carbon	510 ohms 1/16W
R263	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R264	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R265	YF2116511JT	Carbon	510 ohms 1/16W
R266	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R267	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R268	YF2116331JT	Carbon	330 ohms 1/16W
R269	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R270	YF2116202JT	Carbon	2K ohms 1/16W
R271,272	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R273	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R274	YF2116332JT	Carbon	3.3K ohms 1/16W
R275	YF2116511JT	Carbon	510 ohms 1/16W
R276	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R277	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R278	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R279	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R280	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R281	YF2116181JT	Carbon	180 ohms 1/16W
R282	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R283	YF2116202JT	Carbon	2K ohms 1/16W
R284	YF2116912GT	Carbon	9.1K ohms 1/16W
R285	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R286	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R287	YF2116332JT	Carbon	3.3K ohms 1/16W
R288	YF2116511JT	Carbon	510 ohms 1/16W
R289	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R290	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R291	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R292	YWR1220P512D	Metal	5.1K ohms
R293	YWR1220P162D	Carbon	1.6K ohms
R294	YWR1220P622D	Metal	6.2K ohms
R295	YWR1220P682D	Metal	6.8K ohms
R296,297	YWR1220P242D	Metal	2.4K ohms
R298	YWR1220P682D	Metal	6.8K ohms
R299-302	YF2116510JT	Carbon	51 ohms 1/16W
R303	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R304	YF2116432JT	Carbon	4.3K ohms 1/16W
R305,306	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R307	YF2116202JT	Carbon	2K ohms 1/16W
R308	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R309	YF2116621JT	Carbon	620 ohms 1/16W
R311	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R312	YWR1220P102D	Metal	1K ohms
R313	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R315	YFR1220P222D	Metal	2.2K ohms
R316	YWR1220P512D	Metal	5.1K ohms
R317	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R318	YF2116474JT	Carbon	470K ohms 1/16W
R319	YF2116332JT	Carbon	3.3K ohms 1/16W
R320	YF2116222GT	Carbon	2.2K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R321,322	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R323	YF2116680JT	Carbon	68 ohms 1/16W
R324,325	YF2116104JT	Carbon	100K ohms 1/16W
R326	YF2116680JT	Carbon	68 ohms 1/16W
R327,328	YF2116104JT	Carbon	100K ohms 1/16W
R329	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R330	YF2116331JT	Carbon	330 ohms 1/16W
R331	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R332,333	YF2116332JT	Carbon	3.3K ohms 1/16W
R334	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R335,336	YF2116512JT	Carbon	5.1K ohms 1/16W
R337	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R338,339	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R340,341	YF2116680JT	Carbon	68 ohms 1/16W
R342,343	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R344	YF2116101JT	Carbon	100 ohms 1/16W
R345	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R346	YWR1220P102D	Metal	1K ohms
R347	YF2116101JT	Carbon	100 ohms 1/16W
R348	YWR1220P102D	Metal	1K ohms
R349	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R350	YF2116332JT	Carbon	3.3K ohms 1/16W
R351	YF2116222GT	Carbon	2.2K ohms 1/16W
R352	YF2116474JT	Carbon	470K ohms 1/16W
R353,354	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R355,356	YF2116680JT	Carbon	68 ohms 1/16W
R357,358	YF2116104JT	Carbon	100K ohms 1/16W
R359	YF2116202JT	Carbon	2K ohms 1/16W
R360	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R362	YF2116101JT	Carbon	100 ohms 1/16W
R363	YWR1220P102D	Metal	1K ohms
R364	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R365	YFR1220P222D	Metal	2.2K OHMS
R367	YWR1220P512D	Metal	5.1K ohms
R368	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R369	YF2116474JT	Carbon	470K ohms 1/16W
R371	YF2116222GT	Carbon	2.2K ohms 1/16W
R372	YF2116202JT	Carbon	2K ohms 1/16W
R373	YF2116331JT	Carbon	330 ohms 1/16W
R374	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R375,376	YF2116332JT	Carbon	3.3K ohms 1/16W
R377,381	YF2116511JT	Carbon	510 ohms 1/16W
R382	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R383	YWR1220P102D	Metal	1K ohms
R384	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R386	YF2116332JT	Carbon	3.3K ohms 1/16W
R387	YF2116222GT	Carbon	2.2K ohms 1/16W
R388	YF2116474JT	Carbon	470K ohms 1/16W
R389,390	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R391	YF2116680JT	Carbon	68 ohms 1/16W
R392	YF2116104JT	Carbon	100K ohms 1/16W
R393	YF2116750JT	Carbon	75 ohms 1/16W
R394	YF2116511JT	Carbon	510 ohms 1/16W
R395	YF2116392JT	Carbon	3.9K ohms 1/16W
R396	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R397,398	YF2116750JT	Carbon	75 ohms 1/16W
R399	YF2116332JT	Carbon	3.3K ohms 1/16W
R400	YF2116222GT	Carbon	2.2K ohms 1/16W
R401	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R402-404	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R405	YF2116684JT	Carbon	680K ohms 1/16W
R406	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R407	ERJ6GEYJ562	Carbon	5.6K ohms 1/16W
R408	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R409	YF2116512JT	Carbon	5.1K ohms 1/16W
R410	YF2116163JT	Carbon	16K ohms 1/16W
R411,412	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R413,414	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R415	YW2116305JT	Carbon	3M ohms1/16W
R416	YF2116332JT	Carbon	3.3K ohms 1/16W
R417	YW2116305JT	Carbon	3M ohms1/16W
R418	YF2116332JT	Carbon	3.3K ohms 1/16W
R419,420	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R421,422	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R423	YF2116163JT	Carbon	16K ohms 1/16W
R424	YF2116222GT	Carbon	2.2K ohms 1/16W
R425	YF2116432JT	Carbon	4.3K ohms 1/16W
R426-428	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R429	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R430	YF2116152JT	Carbon	1.5K ohms 1/16W
R433	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R434	YF2116474JT	Carbon	470K ohms 1/16W
R435	YF2116222GT	Carbon	2.2K ohms 1/16W
R436	YF2116332JT	Carbon	3.3K ohms 1/16W
R437	YF2116474JT	Carbon	470K ohms 1/16W
R438,439	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R440	YF2116680JT	Carbon	68 ohms 1/16W
R441	YF2116104JT	Carbon	100K ohms 1/16W
R442	YF2116621JT	Carbon	620 ohms 1/16W
R443-446	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R447	YF2116754JT	Carbon	750K ohms 1/16W
R448	YF2116912GT	Carbon	9.1K ohms 1/16W
R449	YF2116183GT	Carbon	18K ohms 1/16W
R450-454	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R503	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R517	YF2116432JT	Carbon	4.3K ohms 1/16W
R518	YF2116222GT	Carbon	2.2K ohms 1/16W
R519	YF2116112JT	Carbon	1.1K ohms 1/16W
R520	YF2116222GT	Carbon	2.2K ohms 1/16W
R521	YF2116332JT	Carbon	3.3K ohms 1/16W
R522	YF2116511JT	Carbon	510 ohms 1/16W
R526,527	YF2116680JT	Carbon	68 ohms 1/16W
R528	YF2116332JT	Carbon	3.3K ohms 1/16W
R529	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R530	YF2116332JT	Carbon	3.3K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R531	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R532	YF2116202JT	Carbon	2K ohms 1/16W
R533	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R534	YF2116202JT	Carbon	2K ohms 1/16W
R535	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R536	YF2116202JT	Carbon	2K ohms 1/16W
R537	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R538	YF2116202JT	Carbon	2K ohms 1/16W
R539	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R540	YF2116202JT	Carbon	2K ohms 1/16W
R541	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R542	YF2116202JT	Carbon	2K ohms 1/16W
R543	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R544	YF2116101JT	Carbon	100 ohms 1/16W
R545	YF2116181JT	Carbon	180 ohms 1/16W
R546	YF2116101JT	Carbon	100 ohms 1/16W
R547	YF2116181JT	Carbon	180 ohms 1/16W
R548-555	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R556	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R557	YF2116332JT	Carbon	3.3K ohms 1/16W
R558	YF2116222GT	Carbon	2.2K ohms 1/16W
R559	YF2116474JT	Carbon	470K ohms 1/16W
R560,561	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R562,563	YF2116680JT	Carbon	68 ohms 1/16W
R564	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R565	YF2116122JT	Carbon	1.2K ohms 1/16W
R566	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R567	YF2116392JT	Carbon	3.9K ohms 1/16W
R568	YF2116432JT	Carbon	4.3K ohms 1/16W
R569	YF2116332JT	Carbon	3.3K ohms 1/16W
R570-572	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R573	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R574,575	YF2116104JT	Carbon	100K ohms 1/16W
R577,578	YF2116221JT	Carbon	220 ohms 1/16W
R579	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R580	YF2116471JT	Carbon	470 ohms 1/16W
R581	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R582	YF2116474JT	Carbon	470K ohms 1/16W
R583	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R584	YF2116471JT	Carbon	470 ohms 1/16W
R585,587	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R588	YF2116471JT	Carbon	470 ohms 1/16W
R589	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R590	YF2116474JT	Carbon	470K ohms 1/16W
R591	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R592	YF2116471JT	Carbon	470 ohms 1/16W
R593	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R595-598	YF2116101JT	Carbon	100 ohms 1/16W
R599,600	YF2116100JT	Carbon	10 ohms 1/10W
R603,610	YF2116561JT	Carbon	560 ohms 1/16W
R617-620	ERDS2TJ100	Carbon	10 ohms
R621,622	YF2116100JT	Carbon	10 ohms 1/10W
R623-626	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R627	YF2116682JT	Carbon	6.8K ohms 1/16W
R628	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R629	YF2116332JT	Carbon	3.3K ohms 1/16W
R630	ERDS2TJ100	Carbon	10 ohms
R631	YF2116333GT	Carbon	33K ohms 1/16W
R632	ERJ6GEYJ223	Carbon	22K ohms 1/10W
R633	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R634,635	YF2116333GT	Carbon	33K ohms 1/16W
R636	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R637,638	YF2116333GT	Carbon	33K ohms 1/16W
R639	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R640,641	YF2116333GT	Carbon	33K ohms 1/16W
R642	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R643,644	L311J103J332	Carbon	10K ohms
R700	YF2116201JT	Carbon	200 ohms 1/16W
R702	YF2116123JT	Carbon	12K ohms 1/16W
R704	YF2116184JT	Carbon	180K ohms 1/16W
R706	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R707,708	YF2116331JT	Carbon	330 ohms 1/16W
R709,710	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R711-713	YF2116331JT	Carbon	330 ohms 1/16W
R714	YF2116332JT	Carbon	3.3K ohms 1/16W
R715-728	YF2116331JT	Carbon	330 ohms 1/16W
R729	YF2116510JT	Carbon	51 ohms 1/16W
R730,731	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R732	YF2116101JT	Carbon	100 ohms 1/16W
R734	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R735,737	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R739	ERJ6GEY0R00	Carbon	0 ohms 1/10W
R742,744	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R745-752	YF2116331JT	Carbon	330 ohms 1/16W
R753	YF2116100JT	Carbon	10 ohms 1/10W
R754	ERDS2TJ121	Carbon	120 ohms
R755,756	YF2116330JT	Carbon	33 ohms 1/16W
R757,758	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R759	YF2116473GT	Carbon	47K ohms 1/16W
R760-765	YF2116221JT	Carbon	220 ohms 1/16W
R766	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R767	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R768	YF2116101JT	Carbon	100 ohms 1/16W
R769	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R770-772	YF2116331JT	Carbon	330 ohms 1/16W
R773-776	YF2116221JT	Carbon	220 ohms 1/16W
R777-784	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R785-788	YF2116104JT	Carbon	100K ohms 1/16W
R789-791	YF2116331JT	Carbon	330 ohms 1/16W
R792	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R793-817	YF2116331JT	Carbon	330 ohms 1/16W
R818-823	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R824	YF2116184JT	Carbon	180K ohms 1/16W
R825	YF2116331JT	Carbon	330 ohms 1/16W
R826	YF2116101JT	Carbon	100 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R827	YFR1220P104D	Metal	100K ohms
R828	YWR1220P124D	Metal	120K ohms
R829	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R830	YF2116104JT	Carbon	100K ohms 1/16W
R832	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R833-836	YF2116331JT	Carbon	330 ohms 1/16W
R837-840	YF2116101JT	Carbon	100 ohms 1/16W
R841-849	YF2116331JT	Carbon	330 ohms 1/16W
R851	YF2116331JT	Carbon	330 ohms 1/16W
R852-859	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R862	YW2116105JT	Carbon	1M ohms 1/16W
R863	YF2116224JT	Carbon	220K ohms 1/16W
R864	YF2116331JT	Carbon	330 ohms 1/16W
R865,866	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R867,868	YF2116473GT	Carbon	47K ohms 1/16W
R869	YF2116221JT	Carbon	220 ohms 1/16W
R870	ERDS2TJ102	Carbon	1K ohms 1/4W
R872	YF2116101JT	Carbon	100 ohms 1/16W
R873,874	YF2116681JT	Carbon	680 ohms 1/16W
VR1,5	EVM1DSW30BY2	Variable Resistor	330 ohms
VR9	EVM1DSW30B54	Variable Resistor	50K ohms
VR10,11	EVM1DSW30B24	Variable Resistor	20K ohms
VR12	EVM1DSW30B54	Variable Resistor	50K ohms
VR13,14	EVM1DSW30B24	Variable Resistor	20K ohms
VR15,16	EVM1DSW30BY2	Variable Resistor	330 ohms
VR17	EVM1DSW30BQ3	Variable Resistor	4.7K ohms
VR18,19	EVM1DSW30BY2	Variable Resistor	330 ohms
VR20,21	-EVM1DSW30BE3	Variable Resistor	2.2K ohms
VR22	EVM1DSW30BQ3	Variable Resistor	4.7K ohms
VR23,24	-EVM1DSW30BE3	Variable Resistor	2.2K ohms
VR25	EVM1DSW30BQ3	Variable Resistor	4.7K ohms
VR26-29	EVM1DSW30BY2	Variable Resistor	330 ohms
VR31-34	-EVM1DSW30BE3	Variable Resistor	2.2K ohms
VR39	-EVM1DSW30BE3	Variable Resistor	2.2K ohms
Z700,701	EXBF9E103J	Block Resistor	
Z702-707	YWRKM10L102F	Block Resistor	
Z708-712	EXBF9E103J	Block Resistor	
C1	ECEA1CKS470	Electrolytic	47 µF 16V
C2	ECEA1AKS470	Electrolytic	47 µF 10V
C3,4	YWS21A106T	Electrolytic	10 µF 10V
C5-12	ECEA1AKS101	Electrolytic	100 µF 10V
C13-20	YF400103XKT	Ceramic	0.01 µF
C21-24	YF400101CHJT	Ceramic	100 pF
C25	YF400104FZT	Ceramic	0.1 µF
C26	YWS21A106T	Electrolytic	10 µF
C27,28	YF400104FZT	Ceramic	0.1 µF
C29	YWS21A106T	Electrolytic	10 µF 10V
C30	YF400104FZT	Ceramic	0.1 µF
C41,42	ECEA1ASN100	Electrolytic	10 µF 10V
C43	ECEA1AKS101	Electrolytic	100 µF 10V
C44,45	YF400103XKT	Ceramic	0.01 µF
C46	ECEA1AKS101	Electrolytic	100 µF 10V
C49	YF400222XKT	Ceramic	2200 pF
C62	ECEA1VKS470	Electrolytic	47 µF 35V
C63	YF400101CHJT	Ceramic	100 pF

REF.NO.	PART NO.	DESCRIPTION	
C64	ECEA1AKS101	Electrolytic	100 µF 10V
C66	ECSF1HE474	Electrolytic	0.47 µF 50V
C67	ECEA1CKS470	Electrolytic	47 µF 16V
C68	YWT316B104MT	Ceramic	0.1 µF
C69,70	YWS21A106T	Electrolytic	10 µF 10V
C71	YWT316B104MT	Ceramic	0.1 µF
C72	YWS21A336	Electrolytic	33 µF 10V
C73	YWT316B104MT	Ceramic	0.1 F
C74	YWS21A336	Electrolytic	33 µF 10V
C75	ECEA1HKSR47	Electrolytic	0.47 µF 50V
C76	YF400102XKT	Ceramic	1000 pF
C81	ECEA1AKS101	Electrolytic	100 µF 10V
C82	ECEA1ASN100	Electrolytic	10 µF 10V
C83-85	YWT316B104MT	Ceramic	0.1 µF
C86	YWS21A106T	Electrolytic	10 µF 10V
C87	YF400070CHDT	Ceramic	7 pF (CH)
C88	YF400180CHJT	Ceramic	18 pF
C92-94	YWT316B104MT	Ceramic	0.1 µF
C95	YWS21A106T	Electrolytic	10 µF 10V
C96	YF400070CHDT	Ceramic	7 pF (CH)
C97	YF400180CHJT	Ceramic	18 pF
C101	YF400102XKT	Ceramic	1000 pF
C102	ECEA1VKS470	Electrolytic	47 µF 35V
C103	YF400101CHJT	Ceramic	100 pF
C104	ECEA1AKS101	Electrolytic	100 µF 10V
C106	ECSF1HE474	Electrolytic	0.47 µF 50V
C107	YWT316B104MT	Ceramic	0.1 µF
C108	ECEA1CKS470	Electrolytic	47 µF 16V
C109	YWS21A106T	Electrolytic	10 µF 10V
C110	YWT316B104MT	Ceramic	0.1 µF
C111	YWS21A336	Electrolytic	33 µF 10V
C112	YWT316B104MT	Ceramic	0.1 µF
C113	YWS21A336	Electrolytic	33 µF 10V
C114	ECEA1HKSR47	Electrolytic	0.47 µF 50V
C119	ECEA1AKS101	Electrolytic	100 µF 10V
C120	ECEA1ASN100	Electrolytic	10 µF 10V
C126,127	ECEA1ASN100	Electrolytic	10 µF 10V
C128,129	YF400103XKT	Ceramic	0.01 µF
C130,131	ECEA1AKS101	Electrolytic	100 µF 10V
C140	YF400222XKT	Ceramic	2200 pF
C152	ECEA0JKS470	Electrolytic	47 µF 6.3V
C153,154	YWT316B104MT	Ceramic	0.1 µF
C155	ECEA1CKS220	Electrolytic	22 µF 16V
C156	ECEA1HKS010	Electrolytic	1 µF 50V (KS)
C157	ECEA1HKSR47	Electrolytic	0.47 µF 50V
C158	ECEA1HKS010	Electrolytic	1 µF 50V (KS)
C159	YF400201CHJT	Ceramic	200 pF
C160,161	YWT316B473MT	Ceramic	0.047 µF
C162,163	YF400102XKT	Ceramic	1000 pF
C164	YF400222XKT	Ceramic	2200 pF
C165	YWT316B104MT	Ceramic	0.1 µF
C166	ECEA1ES4R7	Electrolytic	4.7 µF 25V (KS)
C168	YWT316B104MT	Ceramic	0.1 µF
C169	ECEA1HKS010	Electrolytic	1 µF 50V (KS)
C170	YWT316B104MT	Ceramic	0.1 µF

REF.NO.	PART NO.	DESCRIPTION
C171	ECEA0JKS470	Electrolytic 47 µF 6.3V
C172	YWT316B104MT	Ceramic 0.1 µF
C173	ECEA1HKS010	Electrolytic 1 µF 50V (KS)
C174	YWT316B104MT	Ceramic 0.1 µF
C175	YF400050CHDT	Ceramic 5 pF
C176	YF400561CHJT	Ceramic 560 pF
C177	YF400102XKT	Ceramic 1000 pF
C178	ECEA0JKS470	Electrolytic 47 µF 6.3V
C179,180	YWT316B104MT	Ceramic 0.1 µF
C181	ECEA1CKS220	Electrolytic 22 µF 16V
C182	ECEA1HKS010	Electrolytic 1 µF 50V (KS)
C183	ECEA1HKSR47	Electrolytic 0.47 µF 50V
C184	ECEA1HKS010	Electrolytic 1 µF 50V (KS)
C185	YF400201CHJT	Ceramic 200 pF
C186,187	YWT316B473MT	Ceramic 0.047 µF
C188,189	YF400102XKT	Ceramic 1000 pF
C190	YF400222XKT	Ceramic 2200 pF
C191	YWT316B104MT	Ceramic 0.1 µF
C192	ECEA1ES4R7	Electrolytic 4.7 µF 25V (KS)
C194	YWT316B104MT	Ceramic 0.1 µF
C195	ECEA1HKS010	Electrolytic 1 µF 50V (KS)
C196,197	YWT316B104MT	Ceramic 0.1 µF
C198	ECEA0JKS470	Electrolytic 47 µF 6.3V
C199	ECEA1HKS010	Electrolytic 1 µF 50V (KS)
C200	YWT316B104MT	Ceramic 0.1 µF
C201	YF400050CHDT	Ceramic 5 pF
C202	YF400561CHJT	Ceramic 560 pF
C203	YF400102XKT	Ceramic 1000 pF
C210	YF400103XKT	Ceramic 0.01 µF
C211	YWT316B104MT	Ceramic 0.1 µF
C212-214	YF400103XKT	Ceramic 0.01 µF
C215	ECEA1CKS220	Electrolytic 22 µF 16V
C216	ECEA1VKS470	Electrolytic 47 µF 35V
C217	YF400121CHJT	Ceramic 120 pF
C218	ECEA1AKS101	Electrolytic 100 µF 10V
C219	ECEA1CKA101	Electrolytic 100 µF 16V
C221	YF400330CHJT	Ceramic 33 pF
C222	YWS21A106T	Electrolytic 10 µF
C223	ECSF1HE105	Electrolytic 1 µF 50V
C224	ECEA0JKS470	Electrolytic 47 µF 6.3V
C225	YF400102XKT	Ceramic 1000 pF
C226	ECEA1VKS470	Electrolytic 47 µF 35V
C227	ECEA1AKS101	Electrolytic 100 µF 10V
C228	ECEA1CKA101	Electrolytic 100 µF 16V
C229	YF400330CHJT	Ceramic 33 pF
C230	ECEA1HKS2R2	Electrolytic 2.2 µF 50V
C231	ECEA0JKS470	Electrolytic 47 µF 6.3V
C232	YF400102XKT	Ceramic 1000 pF
C233	ECEA1VKS470	Electrolytic 47 µF 35V
C234	ECEA1AKS101	Electrolytic 100 µF 10V
C235	ECEA1CKA101	Electrolytic 100 µF 16V
C236	YF400330CHJT	Ceramic 33 pF
C237	ECEA1HKS2R2	Electrolytic 2.2 µF 50V
C238	ECEA0JKS470	Electrolytic 47 µF 6.3V
C239	YF400102XKT	Ceramic 1000 pF

REF.NO.	PART NO.	DESCRIPTION
C240,241	YF400101CHJT	Ceramic 100 pF
C241	YF400271CHJT	Ceramic 270 pF
C242	ECEA1VKS470	Electrolytic 47 µF 35V
C243	YF400121CHJT	Ceramic 120 pF
C244	ECEA1AKS101	Electrolytic 100 µF 10V
C246	ECEA1CKA101	Electrolytic 100 µF 16V
C247	YF400330CHJT	Ceramic 33 pF
C248	ECSF1HE105	Electrolytic 1 µF 50V
C249	ECEA0JKS470	Electrolytic 47 µF 6.3V
C250	YF400102XKT	Ceramic 1000 pF
C251	ECEA1VKS470	Electrolytic 47 µF 35V
C252	ECEA1AKS101	Electrolytic 100 µF 10V
C253	ECEA1CKA101	Electrolytic 100 µF 16V
C254	YF400330CHJT	Ceramic 33 pF
C255	ECEA1HKS2R2	Electrolytic 2.2 µF 50V
C256	ECEA0JKS470	Electrolytic 47 µF 6.3V
C257	YF400102XKT	Ceramic 1000 pF
C258	ECEA1VKS470	Electrolytic 47 µF 35V
C259	ECEA1AKS101	Electrolytic 100 µF 10V
C260	ECEA1CKA101	Electrolytic 100 µF 16V
C261	YF400330CHJT	Ceramic 33 pF
C262	ECEA1HKS2R2	Electrolytic 2.2 µF 50V
C263	YF400102XKT	Ceramic 1000 pF
C264	YF400103XKT	Ceramic 0.01 µF
C265	YWT316B104MT	Ceramic 0.1 µF
C266-268	YF400103XKT	Ceramic 0.01 µF
C269	ECEA1CKS220	Electrolytic 22 µF16V
C270	YF400680CHJT	Ceramic 68 pF CH
C273	YF400390CHJT	Ceramic 39 pF
C274	YF400100CHJT	Ceramic 10 pF
C275	ECST1VD475	Electrolytic 4.7µF 35V
C276	ECEA0GKS470	Electrolytic 47 µF 4V
C277	ECEA1AKS470	Electrolytic 47 µF10V
C278	ECEA0JU332	Electrolytic 3300 µF 6.3V
C279	ECEA0JU332	Electrolytic 3300 µF 6.3V
C280	ECEA1AKS220	Electrolytic 22 µF10V
C281	YF400222XKT	Ceramic 2200 pF
C282	ECEA1AKS470	Electrolytic 47 µF10V
C283	ECEA0GKS470	Electrolytic 47 µF 4V
C284-286	YF400222XKT	Ceramic 2200 pF
C287	ECEA1AKS101	Electrolytic 100 µF10V
C288	ECEA1CKS470	Electrolytic 47 µF16V
C289	ECEA1ES4R7	Electrolytic 4.7µF 25V (KS)
C290	ECEA0GKS470	Electrolytic 47 µF 4V
C291	ECEA1AKS470	Electrolytic 47 µF10V
C292	ECEA0JU332	Electrolytic 3300 µF 6.3V
C293	ECEA0JU332	Electrolytic 3300 µF 6.3V
C295	ECEA1CKS470	Electrolytic 47 µF16V
C296	YF400390CHJT	Ceramic 39 pF
C297	YF400100CHJT	Ceramic 10 pF
C298	ECST1VD475	Electrolytic 4.7µF 35V

REF.NO.	PART NO.	DESCRIPTION	
C299	YF400100CHJT	Ceramic	10 pF
C300	ECEA1ES4R7	Electrolytic	4.7 µF 25V (KS)
C301	ECEA1CKS470	Electrolytic	47 µF16V
C302	ECEA0GKS470	Electrolytic	47 µF 4V
C303	ECEA0JU332	Electrolytic	3300 µF 6.3V
C304,307	ECEA1AKS220	Electrolytic	22 µF10V
C308	ECEA1AKS470	Electrolytic	47 µF10V
C309	ECEA1AKS220	Electrolytic	22 µF 10V
C310	ECEA1AKS470	Electrolytic	47 µF 10V
C311,312	YF400220CHJT	Ceramic	22 pF
C313	YWT316B104MT	Ceramic	0.1 µF
C314	ECEA1AKS470	Electrolytic	47 µF 10V
C315	YWT316B104MT	Ceramic	0.1 µF
C316	YF400100CHJT	Ceramic	10 pF
C317	ECST1VD475	Tantalum	4.7 µF 35V
C318	ECEA0GKS470	Electrolytic	47 µF 4V
C319	ECEA1AKS470	Electrolytic	47 µF 10V
C320	ECEA0GKA471	Electrolytic	470 µF 4V
C322	YF400103XKT	Ceramic	0.01 µF
C323	ECEA1ESN3R3	Electrolytic	3.3 µF 25V
C324	ECEA0JKS470	Electrolytic	47 µF 6.3V
C325	YWT316B104MT	Ceramic	0.1 µF
C326	ECEA1AKS220	Electrolytic	22 µF 10V
C327	YWT316B104MT	Ceramic	0.1 µF
C328	ECEA1AKS220	Electrolytic	22 µF 10V
C330	YWT316B473MT	Ceramic	0.047 µF
C331	ECEA0JKS470	Electrolytic	47 µF 6.3V
C332,354	YWS21A106T	Electrolytic	10 µF 10V
C361	ECEA1HKS3R3	Electrolytic	3.3 µF 50V
C362	ECEA1CKS470	Electrolytic	47 µF 16V
C365,366	ECEA1AKS101	Electrolytic	100 µF
C367	YF400680CHJT	Ceramic	68 pF
C368	ECST1VD475	Tantalum	4.7 µF 35V
C369	ECEA0GKS470	Electrolytic	47 µF 4V
C370	ECEA1AKS470	Electrolytic	47 µF 10V
C371,372	ECEA0JKS101	Electrolytic	100 µF 6.3V
C373,374	YF400680CHJT	Ceramic	68 pF
C375-378	ECEA1AKS470	Electrolytic	47 µF 10V
C379,380	YF400103XKT	Ceramic	0.01 µF
C381,382	YF400390CHJT	Ceramic	39 pF
C387-390	ECSF1EE226	Electrolytic	22 µF 25V
C391	YF400330CHJT	Ceramic	33 pF
C392	YF400820CHJT	Ceramic	82 pF
C393-397	YWS21A106T	Electrolytic	10 µF
C398-401	YWT316B104MT	Ceramic	0.1 µF
C402	ECEA1AKS101	Electrolytic	100 µF 10V
C403-407	ECEA1CKS470	Electrolytic	47 µF 16V
C700	ECEA1CKS330	Electrolytic	33 µF 16V
C701	YF400104FZT	Ceramic	0.1 µF
C702	YWT316B104MT	Ceramic	0.1 µF
C703	YWFYD0H105Z	Electrolytic	1 µF
C704	YF400104FZT	Ceramic	0.1 µF
C705	YWT316B104MT	Ceramic	0.1 µF
C706	ECEA1CKS330	Electrolytic	33 µF 16V
C707	ECEA1AKS101	Electrolytic	100 µF 10V
C708	YF400102XKT	Ceramic	1000 pF
C709	YF400103XKT	Ceramic	0.01 µF
C710	YWT316B104MT	Ceramic	0.1 µF
C711	YF400222XKT	Ceramic	2200 pF
C712-714	YWT316B104MT	Ceramic	0.1 µF
C715,716	YF400101CHJT	Ceramic	100 pF
C717	YWT316B104MT	Ceramic	0.1 µF
C718	YF400330CHJT	Ceramic	33 pF
C719-721	YF400101CHJT	Ceramic	100 pF
C722	YWT316B104MT	Ceramic	0.1 µF
C723-736	YF400101CHJT	Ceramic	100 pF
C737,738	YWT316B104MT	Ceramic	0.1 µF
C739	YF400101CHJT	Ceramic	100 pF
C742	YWT316B104MT	Ceramic	0.1 µF
C743	ECSF1CE106	Tantalum	10 µF 16V
C744	YWT316B104MT	Ceramic	0.1 µF
C745	ECEA0JKA221	Electrolytic	220 µF 6.3V
C746	YWT316B104MT	Ceramic	0.1 µF
C747	ECEA1CKS100	Electrolytic	10 µF 16V
C748	YWT316B104MT	Ceramic	0.1 µF
C749	ECEA1CKS100	Electrolytic	10 µF 16V
C750-756	YWT316B104MT	Ceramic	0.1 µF
C757	YF400104FZT	Ceramic	0.1 µF
C758	YWT316B104MT	Ceramic	0.1 µF
C759-762	ECEA1CKS100	Electrolytic	10 µF 16V
C763-774	YF400101CHJT	Ceramic	100 pF
C775	YWT316B104MT	Ceramic	0.1 µF
C776-782	YF400101CHJT	Ceramic	100 pF
C791-814	YF400101CHJT	Ceramic	100 pF
C815,816	YWT316B104MT	Ceramic	0.1 µF
C817	ECEA1CKS330	Electrolytic	33 µF 16V
C818	YWT316B104MT	Ceramic	0.1 µF
C819-822	YF400101CHJT	Ceramic	100 pF
C823-825	YWT316B104MT	Ceramic	0.1 µF
C826	ECEA1AKS470	Electrolytic	47 µF 10V
C827	ECSF1CE106	Electrolytic	10 µF 16V
C828	YWT316B104MT	Ceramic	0.1 µF
C829	YWS21C105	Electrolytic	1 µF
C830	ECQP1H103GZ	Plastic	10000 pF 50V
C831	ECEA1CKS330	Electrolytic	33 µF 16V
C832	YWT316B104MT	Ceramic	0.1 µF
C833	YF400101CHJT	Ceramic	100 pF
C834-836	YWT316B104MT	Ceramic	0.1 µF
C837	ECEA1CU221	Electrolytic	220 µF 16V
C838	ECEA1CU102	Electrolytic	1000 µF 16V
C840,841	ECEA0JKA221	Electrolytic	220 µF 6.3V
C842-850	YF400101CHJT	Ceramic	100 pF
CT3,4	YFTZ03R200FR	Trimmer Capacitor	20 pF
L1,2	ELC08D082	Coil	

REF.NO.	PART NO.	DESCRIPTION
L5	ELESE180KA	Coil 18 µH
L6	ELESE6R8KA	Coil 6.8 µH
L8-10	ELESE1R0KA	Coil 1 µH
L12	ELESE180KA	Coil 18 µH
L13	ELESE6R8KA	Coil 6.8 H
L14,15	ELESE1R0KA	Coil 1 µH
L16	ELESE101KA	Coil 100 µH
L21	ELESE1R0KA	Coil 1 µH
L24,27	ELESE101KA	Coil 100 µH
L28	ELESE101KA	Coil 100 µH
L29,30	ELESE1R0KA	Coil 1 µH
L700	ELC08D082	Coil
L701-706	ELESE100KA	Coil 10 µH
SW701,702	YWA6D8100	Slide Switch
X3,4	YFMS30914M10	Crystal Oscillator
X700	YWCSA1966MXT	Crystal Oscillator
CF1,2	YWYS40075	Filter
CF3	YWYS30500	Filter
CF4,5	YWYS40075	Filter
CF6	YWYS30500	Filter
CF7	YWYS40072	Filter
CF8,9	YWYS30552	Filter
CF10	YWYS40072	Filter
CF11,12	YWYS30552	Filter
CF13	YWYS40075	Filter
CF14	YWYS30500	Filter
CF15	YWYS40075	Filter
CF16,17	YWYS30500	Filter
CF18	YWY5G0399	Filter
CF19	YWYS30500	Filter
CF20	YWYS40075	Filter
CF21	YWYS30500	Filter
CF22	YWYS40075	Filter
CF23	YWYS30500	Filter
CN1	YW530140710	7-pin Connector
CN2	YWF794P026LA	26-pin Connector
CN3	YWF794P030LA	30-pin Connector
CN4	YWF794P024LA	24-pin Connector
CN5	YWF794P040LA	40-pin Connector
CN6	YWF794P030LA	30-pin Connector
CN7	YWF794P020LA	20-pin Connector
CN8	YWF794P034LA	34-pin Connector
TP3-8	YWRCT2125TPV	Test Point
TP11-20	YWRCT2125TPV	Test Point
TP23-25	YWRCT2125TPV	Test Point
M41	YWV2HA1044A1	Shield Parts
M42	YWV2HA1045A2	Shield Parts

REF.NO.	PART NO.	DESCRIPTION
	DIGITAL BOARD	
PCB10 (RTL)	YWJKZMX50P3A	Printed Circuit BoardAssy
IC1	MC74HC4053F	IC
IC2	NJM2904M	IC
IC3,4	YWCXD1175AM	IC
IC5	MC74HC4053F	IC
IC6	NJM2904M	IC
IC7,8	YWCXD1175AM	IC
IC9-11	YWUPD42102G3	IC
IC12	MN53040LBV	IC
IC13-18	YWUPD42102G3	IC
IC19	MN53040LBV	IC
IC20-22	YWUPD42102G3	IC
IC23	YWSC7SU04F	IC
IC24	MN53100LBU4	IC
IC25-36	YWM5M4C500AL	IC
IC43	YWSC7SU04F	IC
IC44	MN53100LBU4	IC
IC45-56	YWM5M4C500AL	IC
IC63	YWPD65240074	IC
IC64,65	YWUPD42102G3	IC
IC66	YWUPD91361	IC
IC67	YWPD65012C25	IC
IC68	MC74HC4053F	IC
IC69	MN676011NPS	IC
IC70	YWSC7SU04F	IC
IC71	YWMC74HC374F	IC
IC72	YWMC74AC374M	IC
IC73	YWPD65082067	IC
IC74	YWMC74HC08F	IC
IC75	YWSC7S32FER	IC
IC76	YWMC74HC74F	IC
IC77	YWMC74HC374F	IC
IC78	YWMC74AC374M	IC
IC79	YWNJM78L09A	IC
IC80	YWSC7S08F	IC
IC81	NJM319M	IC
IC82,83	YWMC74HC541F	IC
IC84	YWSC7SU04F	IC
IC85-87	YWSC7S08F	IC
IC88	YWPD65012C25	IC
IC89	YWSC7SU04F	IC
IC90	MN676011NPS	IC
IC91	YWSC7SU04F	IC
IC92,93	NJM78L05A	IC
IC94	YWSC7S08F	IC
IC95	NJM78L05A	IC
IC96	YW78L05UATE2	IC
Q1-8	MSD601-QRS	Transistor
Q10	2SK198-Q	Transistor
Q11,12	2SK198-Q	FET

REF.NO.	PART NO.	DESCRIPTION
Q13	MSB709-QRS	Transistor
Q14,15	2SA1733	Transistor
Q16	MSB709-QRS	Transistor
Q17	2SA1733	Transistor
Q18	2SK198-Q	FET
Q19	MSD601-QRS	Transistor
Q20,21	MSB709-QRS	Transistor
Q22	2SK198-Q	Transistor
Q23	MSD601-QRS-	Transistor
Q24,25	MSB709-QRS	Transistor
Q26	MSD601-QRS	Transistor
Q27	2SK198-Q	FET
Q28	MSB709-QRS	Transistor
Q29	2SK198-Q	FET
Q30,31	MSD601-QRS	Transistor
D1-7	1SV153	Diode
D8,9	1SS99	Diode
D10-13	1SV153	Diode
R1	YF2116821GT	Carbon 820 ohms 1/16W
R2	YF2116202JT	Carbon 2K ohms 1/16W
R3	YF2116222GT	Carbon 2.2K ohms 1/16W
R4	YF2116511JT	Carbon 510 ohms 1/16W
R5-7	YF2116331JT	Carbon 330 ohms 1/16W
R8	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R9	YF2116112JT	Carbon 1.1K ohms 1/16W
R10-27	YF2116101JT	Carbon 100 ohms 1/16W
R28,29	YF2116331JT	Carbon 330 ohms 1/16W
R30	YF2116821GT	Carbon 820 ohms 1/16W
R31	YF2116202JT	Carbon 2K ohms 1/16W
R32	YF2116222GT	Carbon 2.2K ohms 1/16W
R33	YF2116511JT	Carbon 510 ohms 1/16W
R34	YF2116101JT	Carbon 100 ohms 1/16W
R35-39	YF2116331JT	Carbon 330 ohms 1/16W
R40	ERJ6GEYJ472	Carbon 4.7K ohms 1/16W
R41	YF2116112JT	Carbon 1.1K ohms 1/16W
R42-58	YF2116101JT	Carbon 100 ohms 1/16W
R59-74	YF2116221JT	Carbon 220 ohms 1/16W
R75	YF2116101JT	Carbon 100 ohms 1/16W
R76	YF2116221JT	Carbon 220 ohms 1/16W
R77	YW2116105JT	Carbon 1M ohms 1/16W
R78	YF2116331JT	Carbon 330 ohms 1/16W
R79	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R80	YF2116332JT	Carbon 3.3K ohms 1/16W
R81	YF2116333GT	Carbon 33K ohms 1/16W
R82	YF2116511JT	Carbon 510 ohms 1/16W
R83	YF2116752JT	Carbon 7.5K ohms 1/16W
R84	YF2116331JT	Carbon 330 ohms 1/16W
R85	YF2116104JT	Carbon 100K ohms 1/16W
R86	YF2116331JT	Carbon 330 ohms 1/16W
R89-97	YF2116221JT	Carbon 220 ohms 1/16W
R100-122	YF2116221JT	Carbon 220 ohms 1/16W
R127-140	YF2116221JT	Carbon 220 ohms 1/16W
R141	YF2116392JT	Carbon 3.9K ohms 1/16W
R142-153	YF2116221JT	Carbon 220 ohms 1/16W
R160-175	YF2116221JT	Carbon 220 ohms 1/16W
R176	YF2116392JT	Carbon 3.9K ohms 1/16W
R177	YF2116221JT	Carbon 220 ohms 1/16W
R178	YF2116101JT	Carbon 100 ohms 1/16W
R179	YF2116221JT	Carbon 220 ohms 1/16W
R180	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R181	YW2116105JT	Carbon 1M ohms 1/16W
R182	YF2116331JT	Carbon 330 ohms 1/16W
R183	YF2116332JT	Carbon 3.3K ohms 1/16W
R184	YF2116333GT	Carbon 33K ohms 1/16W
R185	YF2116511JT	Carbon 510 ohms 1/16W
R186	YF2116752JT	Carbon 7.5K ohms 1/16W
R187	YF2116331JT	Carbon 330 ohms 1/16W
R188	YF2116104JT	Carbon 100K ohms 1/16W
R189	YF2116331JT	Carbon 330 ohms 1/16W
R192-199	YF2116221JT	Carbon 220 ohms 1/16W
R202-224	YF2116221JT	Carbon 220 ohms 1/16W
R229-254	YF2116221JT	Carbon 220 ohms 1/16W
R261,262	YF2116104JT	Carbon 100K ohms 1/16W
R263	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R264,265	YF2116621JT	Carbon 620 ohms 1/16W
R266	YF2116511JT	Carbon 510 ohms 1/16W
R267	YF2116104JT	Carbon 100K ohms 1/16W
R268	ERJ6GEY0R00	Carbon 0 ohms 1/10W
R270	YF2116752JT	Carbon 7.5K ohms 1/16W
R271	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R272	YF2116332JT	Carbon 3.3K ohms 1/16W
R273	YF2116101JT	Carbon 100 ohms 1/16W
R274	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R276,277	YF2116511JT	Carbon 510 ohms 1/16W
R278	YF2116752JT	Carbon 7.5K ohms 1/16W
R279	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R280	YF2116332JT	Carbon 3.3K ohms 1/16W
R281	ERJ6GEY0R00	Carbon 0 ohms 1/10W
R283-289	YF2116511JT	Carbon 510 ohms 1/16W
R290-293	ERJ6GEY0R00	Carbon 0 ohms 1/10W
R295,296	YF2116104JT	Carbon 100K ohms 1/16W
R297	YW2116105JT	Carbon 1M ohms 1/16W
R298	YF2116331JT	Carbon 330 ohms 1/16W
R299-346	YF2116221JT	Carbon 220 ohms 1/16W
R347	YF2116101JT	Carbon 100 ohms 1/16W
R348-361	YF2116221JT	Carbon 220 ohms 1/16W
R362	ERJ6GEYJ102	Carbon 1K ohms 1/16W
R363	YW2116105JT	Carbon 1M ohms 1/16W
R364	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R365,366	YF2116331JT	Carbon 330 ohms 1/16W
R367	YF2116752JT	Carbon 7.5K ohms 1/16W
R368	YF2116511JT	Carbon 510 ohms 1/16W
R370	YF2116332JT	Carbon 3.3K ohms 1/16W
R372,373	YF2116221JT	Carbon 220 ohms 1/16W
R374	YF2116511JT	Carbon 510 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R375	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R376	YF2116511JT	Carbon	510 ohms 1/16W
R377	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R378	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R379	YF2116222GT	Carbon	2.2K ohms 1/16W
R380	YF2116392JT	Carbon	3.9K ohms 1/16W
R381	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R382	YF2116221JT	Carbon	220 ohms 1/16W
R383	YF2116101JT	Carbon	100 ohms 1/16W
R384-399	YF2116221JT	Carbon	220 ohms 1/16W
R400,401	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R402-417	YF2116221JT	Carbon	220 ohms 1/16W
R418-420	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R421	YF2116221JT	Carbon	220 ohms 1/16W
R422-432	YF2116331JT	Carbon	330 ohms 1/16W
R433,434	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R436,437	YF2116221JT	Carbon	220 ohms 1/16W
R438	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R439-444	YF2116331JT	Carbon	330 ohms 1/16W
R445,446	YF2116104JT	Carbon	100K ohms 1/16W
R447-463	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R465,466	YF2116511JT	Carbon	510 ohms 1/16W
R467	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R468	YF2116511JT	Carbon	510 ohms 1/16W
R469	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R470	YF2116752JT	Carbon	7.5K ohms 1/16W
R471	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R472	YF2116332JT	Carbon	3.3K ohms 1/16W
R473,474	YF2116104JT	Carbon	100K ohms 1/16W
R475	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R476	YW2116105JT	Carbon	1M ohms 1/16W
R477	YF2116331JT	Carbon	330 ohms 1/16W
R478-481	ERJ6GEY0R00	Carbon	1 ohms 1/10W
R482	YF2116331JT	Carbon	330 ohms 1/16W
R483,484	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R485	YF2116104JT	Carbon	100K ohms 1/16W
R486	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R487	YF2116104JT	Carbon	100K ohms 1/16W
R488	YF2116752JT	Carbon	7.5K ohms 1/16W
R489	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R490	YF2116332JT	Carbon	3.3K ohms 1/16W
R491,492	YF2116621JT	Carbon	620 ohms 1/16W
R493,494	YF2116511JT	Carbon	510 ohms 1/16W
R496	YF2116203JT	Carbon	20K ohms 1/16W
R497	YF2116101JT	Carbon	100 ohms 1/16W
R498	ERJ6GEY0R00	Carbon	1 ohms 1/10W
R500,501	YF2116331JT	Carbon	330 ohms 1/16W
R502,503	YF2116511JT	Carbon	510 ohms 1/16W
R504,505	YF2116331JT	Carbon	330 ohms 1/16W
R507	YF2116331JT	Carbon	330 ohms 1/16W
R508	YF2116202JT	Carbon	2K ohms 1/16W
R509	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R510	YF2116101JT	Carbon	100 ohms 1/16W
R511	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R512	YF2116101JT	Carbon	100 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R513	YF2116221JT	Carbon	220 ohms 1/16W
R514-517	YF2116101JT	Carbon	100 ohms 1/16W
R518-520	YF2116332JT	Carbon	3.3K ohms 1/16W
R521,522	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R523-525	YF2116221JT	Carbon	220 ohms 1/16W
R526	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R527	YF2116221JT	Carbon	220 ohms 1/16W
R531	ERDS2TJ182	Carbon	1.8K ohms 1/4W
R532	ERDS2FJ331	Carbon	330 ohms 1/4W
VR1	EVM1DSW30B14	Variable Resistor	10K ohms
Z1-5	YWRKM10L102F	Block Resistor	
C2,3	ECSF1CE336	Electrolytic	33 µF 16V
C4,5	YF400333XKT	Ceramic	0.033 µF
C6,7	ECEA1AKS330	Electrolytic	33 µF 10V
C8	YWS21A106T	Electrolytic	10µF
C9	YWT316B104MT	Ceramic	0.1 µF
C10	YF400333XKT	Ceramic	0.033 µF
C11	YWS21A106T	Electrolytic	10µF
C12	YWT316B104MT	Ceramic	0.1 µF
C13	YF400680CHJT	Ceramic	68pF CH
C14	YF400333XKT	Ceramic	0.033 µF
C15-17	YF400220CHJT	Ceramic	22pF
C18	YWS21A106T	Electrolytic	10µF
C19	YWT316B104MT	Ceramic	0.1µF
C20	ECEA1ESN4R7	Electrolytic	4.7µF 25V
C21	YF400102XKT	Ceramic	1000 pF
C22	ECEA0JKS470	Electrolytic	47µF 6.3V
C23	YWS21A106T	Electrolytic	10µF
C24	YWT316B104MT	Ceramic	0.1µF
C25	YWS21A106T	Electrolytic	10µF
C26	YF400333XKT	Ceramic	0.033 µF
C27	YWT316B104MT	Ceramic	0.1µF
C28	YF400680CHJT	Ceramic	68pF CH
C29	YF400333XKT	Ceramic	0.033 µF
C30,31	YF400220CHJT	Ceramic	22pF
C32	YF400333XKT	Ceramic	0.033 µF
C33	ECEA1AKS330	Electrolytic	33µF 10V
C34	YF400333XKT	Ceramic	0.033 µF
C35,36	ECEA1AKS330	Electrolytic	33µF 10V
C37	YWS21A106T	Electrolytic	10µF
C38	YWT316B104MT	Ceramic	0.1µF
C39	YWS21A106T	Electrolytic	10µF
C40	YWT316B104MT	Ceramic	0.1µF
C41	YF400333XKT	Ceramic	0.033 µF
C42	YF400680CHJT	Ceramic	68pF CH
C43	YF400333XKT	Ceramic	0.033 µF
C44-48	YF400220CHJT	Ceramic	22pF
C49	YWS21A106T	Electrolytic	10µF
C50	YWT316B104MT	Ceramic	0.1µF
C51	ECEA1ESN4R7	Electrolytic	4.7µF 25V

REF.NO.	PART NO.	DESCRIPTION	
C52	YF400102XKT	Ceramic	1000 pF
C53	ECEA0JKS470	Electrolytic	47 µF 6.3V
C54	YWS21A106T	Electrolytic	10 µF 10V
C55	YWT316B104MT	Ceramic	0.1 µF
C56	YWS21A106T	Electrolytic	10 µF 10V
C57	YF400333XKT	Ceramic	0.033 µF
C58	YWT316B104MT	Ceramic	0.1 µF
C59	YF400680CHJT	Ceramic	68 pF CH
C60	YF400333XKT	Ceramic	0.033 µF
C61	YWT316B104MT	Ceramic	0.1 µF
C62	YWS21A106T	Electrolytic	10 µF 10V
C63,64	YWT316B104MT	Ceramic	0.1 µF
C65	YWS21A106T	Electrolytic	10 µF 10V
C66,67	YWT316B104MT	Ceramic	0.1 µF
C68	YWS21A106T	Electrolytic	10 µF 10V
C69	YWT316B104MT	Ceramic	0.1 µF
C70,71	YWS21A106T	Electrolytic	10 µF 10V
C72-75	YWT316B104MT	Ceramic	0.1 µF
C76	YWS21A106T	Electrolytic	10 µF 10V
C77	ECEA1AKS220	Electrolytic	22 µF 10V
C78	YF400561CHJT	Ceramic	560pF
C79	YF400270CHJT	Ceramic	27 pF
C80	YF400332XKT	Ceramic	3300 pF
C81	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C82	YF400103XKT	Ceramic	0.01 µF
C83	YF400101CHJT	Ceramic	100 pF
C84	YF400330CHJT	Ceramic	33 pF
C85	YWT316B104MT	Ceramic	0.1 µF
C86,87	YWS21A106T	Electrolytic	10 µF 10V
C88,89	YWT316B104MT	Ceramic	0.1 µF
C90	YWS21A106T	Electrolytic	10 µF 10V
C91	YWT316B104MT	Ceramic	0.1 µF
C92	YWS21A106T	Electrolytic	10 µF 10V
C93	ECEA0JU102	Electrolytic	1000 µF 6.3V
C94-98	YWT316B104MT	Ceramic	0.1 µF
C99	ECSF1CE336	Electrolytic	33 µF 16V
C100,101	YWT316B104MT	Ceramic	0.1 µF
C103-106	YWT316B104MT	Ceramic	0.1 µF
C107	ECSF1CE336	Electrolytic	33 µF 16V
C108	YWT316B104MT	Ceramic	0.1 µF
C116	YWS21A106T	Electrolytic	10 µF 10V
C117,118	YWT316B104MT	Ceramic	0.1 µF
C119-121	YF400330CHJT	Ceramic	33 pF
C125-132	YF400330CHJT	Ceramic	33 pF
C141-143	YWT316B104MT	Ceramic	0.1 µF
C144	YWS21A106T	Electrolytic	10 µF 10V
C145	YWT316B104MT	Ceramic	0.1 µF
C146,147	YWS21A106T	Electrolytic	10 µF 10V
C148,149	YWT316B104MT	Ceramic	0.1 µF
C150,151	YWS21A106T	Electrolytic	10 µF 10V
C152-154	YWT316B104MT	Ceramic	0.1 µF
C155	YWS21A106T	Electrolytic	10 µF 10V
C156	YWT316B104MT	Ceramic	0.1 µF
C157	YF400561CHJT	Ceramic	560 pF
C158	YF400270CHJT	Ceramic	27 pF

REF.NO.	PART NO.	DESCRIPTION	
C159	YF400332XKT	Ceramic	3300 pF
C160	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C161	YF400103XKT	Ceramic	0.01 µF
C162	YF400330CHJT	Ceramic	33 pF
C163	YF400101CHJT	Ceramic	100 pF
C164	YWT316B104MT	Ceramic	0.1 µF
C165,166	YWS21A106T	Electrolytic	10 µF 10V
C167,168	YWT316B104MT	Ceramic	0.1 µF
C169	YWS21A106T	Electrolytic	10 µF 10V
C170	ECEA1AKS220	Electrolytic	22 µF 10V
C171	ECEA0JU102	Electrolytic	1000 µF 6.3V
C172-176	YWT316B104MT	Ceramic	0.1 µF
C177	ECSF1CE336	Electrolytic	33 µF 16V
C178-183	YWT316B104MT	Ceramic	0.1 µF
C184	ECSF1CE336	Electrolytic	33 µF 16V
C185	YWT316B104MT	Ceramic	0.1 µF
C193	YWS21A106T	Electrolytic	10 µF 10V
C194	YWT316B104MT	Ceramic	0.1 µF
C195	YF400201CHJT	Ceramic	200 pF
C196,197	YF400101CHJT	Ceramic	100 pF
C198	YWT316B104MT	Ceramic	0.1 µF
C199	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C200	YF400103XKT	Ceramic	0.01 µF
C201	YF400101CHJT	Ceramic	100 pF
C202	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C203	YF400103XKT	Ceramic	0.01 µF
C204	YWS21A226	Electrolytic	22 µF 10V
C205,206	YF400330CHJT	Ceramic	33 pF
C207,208	YWT316B104MT	Ceramic	0.1 µF
C209	YWS21A106T	Electrolytic	10 µF 10V
C210-212	YWT316B104MT	Ceramic	0.1 µF
C213,214	YF400330CHJT	Ceramic	33 pF
C215	YF400201CHJT	Ceramic	200 pF
C216,217	YF400561CHJT	Ceramic	560pF
C218	YWT316B104MT	Ceramic	0.1 µF
C219,220	YWS21A106T	Electrolytic	10 µF 10V
C221	YWT316B104MT	Ceramic	0.1 µF
C222	YWS21A106T	Electrolytic	10 µF 10V
C223	YWT316B104MT	Ceramic	0.1 µF
C224	YWS21A106T	Electrolytic	10 µF 10V
C225,226	YWT316B104MT	Ceramic	0.1 µF
C227	YWS21A106T	Electrolytic	10 µF 10V
C228	YWT316B104MT	Ceramic	0.1 µF
C229	ECSF1CE336	Tantalum	33 µF 16V
C230	YF400270CHJT	Ceramic	27 pF
C231	YF400561CHJT	Ceramic	560 pF
C232	YWT316B104MT	Ceramic	0.1 µF
C233	YWS21A106T	Electrolytic	10 µF 10V
C234	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C235	YF400332XKT	Ceramic	3300 pF
C236	YWS21A106T	Electrolytic	10 µF 10V
C237,238	YWT316B104MT	Ceramic	0.1 µF
C239	YWS21A106T	Electrolytic	10 µF 10V
C240	YWT316B104MT	Ceramic	0.1 µF
C241	YWS21A106T	Electrolytic	10 µF 10V

REF.NO.	PART NO.	DESCRIPTION	
C242,243	ECEA1CKS470	Electrolytic	47 µF 16V
C244	YWT316B104MT	Ceramic	0.1 µF
C245	YF400330CHJT	Ceramic	33 pF
C246	YF400101CHJT	Ceramic	100 pF
C247	YF400390CHJT	Ceramic	39 pF
C248	YF400103XKT	Ceramic	0.01 µF
C249	YWT316B104MT	Ceramic	0.1 µF
C250	ECEA0JKS470	Electrolytic	47 µF 6.3V
C251	YWT316B104MT	Ceramic	0.1 µF
C252	YWS21A106T	Electrolytic	10 µF 10V
C253,254	YWT316B104MT	Ceramic	0.1 µF
C255,256	YWS21A106T	Electrolytic	10 µF 10V
C257	YWT316B104MT	Ceramic	0.1 µF
C258	YWS21A106T	Electrolytic	10 µF 10V
C259,260	YWT316B104MT	Ceramic	0.1 µF
C261	YWS21A106T	Electrolytic	10 µF 10V
C262	YWT316B104MT	Ceramic	0.1 µF
C263-266	YWS21A106T	Electrolytic	10 µF 10V
C267	YWT316B104MT	Ceramic	0.1 µF
C268	YWS21A106T	Electrolytic	10 µF 10V
C269	YWT316B104MT	Ceramic	0.1 µF
C270-272	YWS21A106T	Electrolytic	10 µF 10V
C273-277	YF400330CHJT	Ceramic	33 pF
C283	YF400330CHJT	Ceramic	33 pF
C284	YWT316B104MT	Ceramic	0.1 µF
C285-289	YF400330CHJT	Ceramic	33 pF
C290	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C291	YF400103XKT	Ceramic	0.01 µF
C292	YF400101CHJT	Ceramic	100 pF
C293,294	YF400561CHJT	Ceramic	560pF
C295	YWS21A106T	Electrolytic	10 µF 10V
C296,297	YWT316B104MT	Ceramic	0.1 µF
C298,299	YF400101CHJT	Ceramic	100 pF
C300	YF400201CHJT	Ceramic	200 pF
C301	ECEA1HKS2R2	Electrolytic	2.2 µF 50V
C302	YF400103XKT	Ceramic	0.01 µF
C303,304	YWT316B104MT	Ceramic	0.1 µF
C305	YF400101CHJT	Ceramic	100 pF
C306	YWT316B104MT	Ceramic	0.1 µF
C307	YWS21A106T	Electrolytic	10 µF 10V
C308	ECSF1CE336	Tantalum	33 µF 16V
C309	YF400330CHJT	Ceramic	33 pF
C310,311	YF400101CHJT	Ceramic	100 pF
C312	YF400330CHJT	Ceramic	33 pF
C313	YF400220CHJT	Ceramic	22 pF
C314	YF400101CHJT	Ceramic	100 pF
C315	YF400330CHJT	Ceramic	33 pF
C316	YF400220CHJT	Ceramic	22 pF
C317	YF400101CHJT	Ceramic	100 pF
C318-320	YF400330CHJT	Ceramic	33 pF
C322	YF400330CHJT	Ceramic	33 pF
C323	ECSF1CE336	Tantalum	33 µF 16V
C324-331	YF400330CHJT	Ceramic	33 pF
C332	YWS21A226	Electrolytic	22 µF 10V
C334	YF400390CHJT	Ceramic	39 pF

REF.NO.	PART NO.	DESCRIPTION	
C335	YWS21A226	Electrolytic	22 µF 10V
C336-338	YF400390CHJT	Ceramic	39 pF
C339,340	ECEA1AKS101	Electrolytic	100 µF 10V
C341	YF400390CHJT	Ceramic	39 pF
C342,343	YF400330CHJT	Ceramic	33 pF
C344-346	YWT316B104MT	Ceramic	0.1 µF
C347-349	YF400330CHJT	Ceramic	33 pF
C350,351	YWT316B104MT	Ceramic	0.1 µF
C352,353	YWS21A226	Electrolytic	22 µF 10V
C354-357	YWT316B104MT	Ceramic	0.1 µF
C358	ECEA0JKS331	Electrolytic	330 µF 6.3V
C359,360	YWT316B104MT	Ceramic	0.1 µF
C361	ECEA0JKS331	Electrolytic	330 µF 6.3V
C362,363	YWT316B104MT	Ceramic	0.1 µF
C364	ECSF1CE336	Electrolytic	33 µF 10V
C365-369	YWT316B104MT	Ceramic	0.1 µF
C370	ECSF1CE336	Electrolytic	33 µF 10V
C371	RPE132F104Z	Ceramic	0.1 µF
C372	ECSF1AE336	Electrolytic	33 µF 10V
C373-375	YWT316B104MT	Ceramic	0.1 µF
C376	ECKF1H101KB	Ceramic	100 pF 50V
L2	ELC08D082	Coil	0.82 µH
L3-8	ELESE1R0KA	Coil	1 µH
L9,10	ELESE100KA	Coil	10 µH
L11	ELESE1R0KA	Coil	1 µH
L12	YWS5LE0554	Coil	
L13,14	ELESE100KA	Coil	10 µH
L15,16	ELESE1R0KA	Coil	1 µH
L17	YWS5LE0554	Coil	
L18,19	ELESE100KA	Coil	10 µH
L20,21	ELESE1R0KA	Coil	1 µH
L22,23	ELESE100KA	Coil	10 µH
L24	YWS5LE0554	Coil	
L25	ELESE100KA	Coil	10 µH
L26-30	ELESE220KA	Coil	22 µH
L31-33	ELESE1R0KA	Coil	1 µH
L34	ELC08D082	Coil	0.82 µH
L35	ELESE1R0KA	Coil	1 µH
L36,37	ELESE100KA	Coil	10 µH
X1-4	YFMS30914M10	Crystal Oscillator	
CN1	YW530140510	5-pin Connector	
CN2	YWF794P040LA	40-pin Connector	
CN3	YWF794P020LA	20-pin Connector	
CN4	YW530140710	7-pin Connector	
TP1-5	YWRCT2125TPV	Test Point	
M48	YWV2HA1046A1	Shield Parts	
M49	YWV2HA1047A2	Shield Parts	

SWITCH BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB11 (RTL)	YWJKZMX50P4A	Printed Circuit Board Assy	
IC300,301	YWUPD71055GB	LSI	
IC302	M51944AML1	IC	
IC303	MC74HC4052F	IC	
IC304,305	MC74HC4053F	IC	
IC306,307	YWMC74HC373F	IC	
IC308	YW78L06UATE2	IC	
IC309	YW79L05UATE2	IC	
IC310	YW78L05UATE2	IC	
Q300	TA64	Transistor	
Q301-303	MSB709-QRS	Transistor	
Q304,305	TA78	Transistor	
Q306	TA64	Transistor	
Q307,308	MSB709-QRS	Transistor	
Q309	TA78	Transistor	
Q310	TA64	Transistor	
Q311-313	MSB709-QRS	Transistor	
Q314,315	TA78	Transistor	
Q316	MSD601-QRS	Transistor	
Q317,318	TA78	Transistor	
Q319,320	MSD601-QRS	Transistor	
D300-302	YWDAN212K	Diode	
D303-341	YWSLR34VR3FM	Diode	
D343,345	YWSLR34VR3FM	Diode	
D347,349	YWSLR34VR3FM	Diode	
D351,353	YWSLR34VR3FM	Diode	
D354,356	YWSLR34VR3FM	Diode	
D357,359	YWSLR34VR3FM	Diode	
D360	YWSLR34VR3FM	Diode	
R300-307	YF2116104JT	Carbon	100K ohms 1/16W
R308	YF2116104JT	Carbon	100K ohms 1/16W
R309-323	YF2116104JT	Carbon	100K ohms 1/16W
R324	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R325-348	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R349-372	YF2116272JT	Carbon	2.7K ohms 1/16W
R373-384	YF2116390JT	Carbon	39 ohms 1/16W
R385-387	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R388-390	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R391-402	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R403-426	YF2116121JT	Carbon	120 ohms 1/16W
R427,428	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R429,430	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R431-437	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R438-452	YF2116121JT	Carbon	120 ohms 1/16W
R454-456	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R457-459	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R460-472	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R473,475	YF2116121JT	Carbon	120 ohms 1/16W
R477,479	YF2116121JT	Carbon	120 ohms 1/16W
R481,483	YF2116121JT	Carbon	120 ohms 1/16W
R484,486	YF2116121JT	Carbon	120 ohms 1/16W
R487,489	YF2116121JT	Carbon	120 ohms 1/16W
R490	YF2116121JT	Carbon	120 ohms 1/16W
R491,492	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R493	YWR1220P100D	Metal	10 ohms
R495,496	R1220P331D	Metal	330K ohms
R497-508	ERJ6GEYJ472	Carbon	4.7K ohms 1/16W
R509-520	YF2116101JT	Carbon	100 ohms 1/16W
R521-528	YF2116331JT	Carbon	330 ohms 1/16W
R529-536	ERJ6GEYJ103	Carbon	10K ohms 1/16W
VR300-302	EVJ02AF20B15	Variable Resistor	100K ohms
VR303	EVJ02AF20A15	Variable Resistor	100K ohms
VR304	EWAQFEX05B15	Variable Resistor	100K ohms
VR305	EVJ02AF20A15	Variable Resistor	100K ohms
VR306-309	EVJ02AF20B15	Variable Resistor	100K ohms
VR312,313	EVM8GAGA00B12	Variable Resistor	100 ohms
C300	ECEA0JKS331	Electrolytic	330 µF 6.3V
C301	YWS21A106T	Electrolytic	10 µF 10V
C302	YWT316B104MT	Ceramic	0.1 µF
C303	ECEA0JKA221	Electrolytic	220 µF 6.3V
C304	YWT316B104MT	Ceramic	0.1 µF
C305	YWS21A106T	Electrolytic	10 µF 10V
C306,307	YWT316B104MT	Ceramic	0.1 µF
C308	YWS21A106T	Electrolytic	10 µF 10V
C309	YWT316B104MT	Ceramic	0.1 µF
C310,311	YWS21A106T	Electrolytic	10 µF 10V
C312	YWT316B104MT	Ceramic	0.1 µF
C313	YWS21A106T	Electrolytic	10 µF 10V
C314	YWT316B104MT	Ceramic	0.1 µF
C315	YWS21A106T	Electrolytic	10 µF 10V
C316	YWT316B104MT	Ceramic	0.1 µF
C317	ECEA1EKA470	Electrolytic	47 µF 25V
C318	ECEA1AKS470	Electrolytic	47 µF 10V
C319	ECEA1EKA470	Electrolytic	47 µF 10V
C320	ECEA1AKS470	Electrolytic	47 µF 10V
C321,322	YWT316B104MT	Ceramic	0.1 µF
C323-326	ECEA1AKS470	Electrolytic	47 µF 10V
C427	ECEA1AKS470	Electrolytic	47 µF 10V
C428-450	YWT316B104MT	Ceramic	0.1 µF
C452	ECEA0JKS101	Electrolytic	100 µF 6.3V
C453	ECQV05224JC	Plastic	0.22 µF 50V
C454	ECQM1H334KZ	Plastic	0.33 µF
C455-458	ECQB1H122JZ	Plastic	1200 pF
C459	ECQM1H334KZ	Plastic	0.33 µF
C460	ECQB1H122JZ	Plastic	1200 pF
L1,2	ELJFA100KF	Coil	10 µH
L3	ELC08D082	Coil	
L4,5	ELJFA100KF	Coil	10 µH
SW300-338	EVQQTU05R	Push Switch	
SW347-352	EVQQTU05R	Push Switch	

REF.NO.	PART NO.	DESCRIPTION
SW353-357	YW600W01YP2	Push Switch
SW358-362	YW600W01GP2	Push Switch
SW363,364	YW600W01RP2	Push Switch
SW365	EVQQTU05R	Push Switch
CN1	YW530150310	3-pin Connector
CN2	YWF795P026LA	26-pin Connector
CN3	YWF795P030LA	30-pin Connector
CN4	YWF795P040LA	40-pin Connector
CN5	YWF795P034LA	34-pin Connector
CN6	YW530150610	6-pin Connector

AUDIO BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB12 (RTL)	YWJKZMX50P5A	Printed Circuit Board Assy
IC1,2	NJM4558M	IC
IC3,4	MC74HC4052F	IC
IC5	79L05UATE2	IC
IC6,7	YWM5283P	IC
IC8	MC74HC4053F	IC
IC9,10	NJM2068MD	IC
IC11	NJM2043MD	IC
IC12	YWM5283P	IC
IC13,14	NJM2068MD	IC
IC15,16	NJM4556M	IC
IC17	YWM5216FP	IC
IC18	YW78L05UATE2	IC
Q1	IMX3T9	Transistor
Q2	IMX2	Transistor
Q3	IMX3T9	Transistor
Q4	IMX2	Transistor
Q5	IMX3T9	Transistor
Q6	IMX2	Transistor
Q7	IMX3T9	Transistor
Q8	IMX2	Transistor
Q9-30	MSD601-QRS	Transistor
Q31	MSB709-QRS	Transistor
Q32-36	MSD601-QRS	Transistor
Q37	MSB709-QRS	Transistor
Q38	MSD601-QRS	Transistor
Q39-46	MSB709-QRS	Transistor
D1-9	YWDAN212K	Diode
D101-122	YWRB421D	Diode
D123-126	YWDAN212K	Diode
D401-408	YWSLR34VR3FM	Diode
R5,6	YWR1220P221D	Metal 220 ohms
R7	YWR1220P202D	Metal 2K ohms
R8,9	YWR1220P911D	Metal 910 ohms
R10,11	YWR1220P102D	Metal 1K ohms
R12	YWR1220P333D	Metal 33K ohms
R17,18	YWR1220P221D	Metal 220 ohms
R19	YWR1220P202D	Metal 2K ohms
R20,21	YWR1220P911D	Metal 910 ohms
R22,23	YWR1220P102D	Metal 1K ohms
R24	YWR1220P333D	Metal 33K ohms
R29,30	YWR1220P221D	Metal 220 ohms
R31	YWR1220P202D	Metal 2K ohms
R32,33	YWR1220P911D	Metal 910 ohms
R34,35	YWR1220P102D	Metal 1K ohms
R36	YWR1220P333D	Metal 33K ohms
R41,42	YWR1220P221D	Metal 220 ohms
R43	YWR1220P202D	Metal 2Kohms
R44,45	YWR1220P911D	Metal 910 ohms
R46,47	YWR1220P102D	Metal 1Kohms
R48	YWR1220P333D	Metal 33K ohms
R49-52	ERJ6GEYJ102	Carbon 1Kohms 1/16W
R53	YF2116101JT	Carbon 100 ohms 1/16W
R54	YFR1220P203D	Metal 20K ohms
R55	YF2116302GT	Carbon 3Kohms 1/16W
R57	YF2116101JT	Carbon 100 ohms 1/16W
R58	YFR1220P203D	Metal 20K ohms
R59	YF2116302GT	Carbon 3Kohms 1/16W
R61	YF2116101JT	Carbon 100 ohms 1/16W
R62	YFR1220P203D	Metal 20K ohms
R63	YF2116302GT	Carbon 3Kohms 1/16W
R65	YF2116101JT	Carbon 100 ohms 1/16W
R66	YFR1220P203D	Metal 20K ohms
R68	YF2116302GT	Carbon 3Kohms 1/16W
R70	YF2116301JT	Carbon 300 ohms 1/16W
R71	YFR1220P203D	Metal 20K ohms
R73	YF2116302GT	Carbon 3Kohms 1/16W
R75	YFR1220P203D	Metal 20K ohms
R76	YF2116301JT	Carbon 300 ohms 1/16W
R77	YF2116302GT	Carbon 3Kohms 1/16W
R79	YFR1220P203D	Metal 20K ohms
R80	YF2116301JT	Carbon 300 ohms 1/16W
R81	YF2116302GT	Carbon 3Kohms 1/16W
R83	YFR1220P203D	Metal 20K ohms
R84	YF2116301JT	Carbon 300 ohms 1/16W
R86	YF2116302GT	Carbon 3Kohms 1/16W
R89,91	YF2116101JT	Carbon 100 ohms 1/16W
R93,95	YF2116101JT	Carbon 100 ohms 1/16W
R96-99	YF2116302GT	Carbon 3Kohms 1/16W
R100-103	YF2116473GT	Carbon 47K ohms 1/16W
R106,107	YFR1220P203D	Metal 20K ohms
R110,111	YFR1220P203D	Metal 20K ohms
R112	YWR1220P202D	Metal 2Kohms
R113	YWR1220P333D	Metal 33K ohms
R114	YWR1220P102D	Metal 1Kohms
R115	YWR1220P223D	Metal 22K ohms
R116	YFR1220P203D	Metal 20K ohms
R117	ERJ6GEYJ103	Carbon 10K ohms 1/16W
R118-125	YWR1220P223D	Metal 22K ohms
R126,127	YWR1220P333D	Metal 33K ohms

REF.NO.	PART NO.	DESCRIPTION	
R128,129	YF2116473GT	Carbon	47K ohms 1/16W
R130,131	YF2116561JT	Carbon	560 ohms 1/16W
R132	YF2116101JT	Carbon	100 ohms 1/16W
R133	YF2116302GT	Carbon	3K ohms 1/16W
R134	YF2116101JT	Carbon	100 ohms 1/16W
R135	YF2116302GT	Carbon	3K ohms 1/16W
R136-139	YWR1220P223D	Metal	22K ohms
R140	YWR1220P101D	Metal	100 ohms
R141	YWR1220P472D	Metal	4.7K ohms
R142	YFR1220P104D	Metal	100K ohms
R143	YF2116332JT	Carbon	3.3K ohms 1/16W
R144	ERJ6GEYJ562	Carbon	5.6K ohms 1/16W
R145	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R146	YWR1220P103D	Metal	10K ohms
R147	YWR1220P393D	Metal	39K ohms
R148	YWR1220P101D	Metal	100 ohms
R150	YWR1220P103D	Metal	10K ohms
R151	YWR1220P393D	Metal	39K ohms
R152	YWR1220P101D	Metal	100 ohms
R154	YWR1220P153D	Metal	15K ohms
R155	R1220P363D	Metal	36K ohms
R156	YWR1220P750D	Metal	75 ohms
R158	YFR1220P203D	Metal	20K ohms
R159	YWR1220P153D	Metal	15K ohms
R160	R1220P363D	Metal	36K ohms
R161	YWR1220P750D	Metal	75 ohms
R163	YFR1220P203D	Metal	20K ohms
R164,165	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R166	YWR1220P223D	Metal	22K ohms
R167	YWR1220P154D	Metal	150K ohms
R168	YF2116101JT	Carbon	100 ohms 1/16W
R169	YWR1220P103D	Metal	10K ohms
R170	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R171	YWR1220P223D	Metal	22K ohms
R172	YWR1220P154D	Metal	150K ohms
R173	YF2116101JT	Carbon	100 ohms 1/16W
R174	YWR1220P103D	Metal	10K ohms
R175	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R176	YWR1220P103D	Metal	10K ohms
R177	YWR1220P183D	Metal	18K ohms
R178	YWR1220P103D	Metal	10K ohms
R179	YWR1220P470D	Metal	47 ohms
R180	YFR1220P203D	Metal	20K ohms
R181,182	YWR1220P103D	Metal	10K ohms
R183	YFR1220P203D	Metal	20K ohms
R184	YWR1220P470D	Metal	47 ohms
R185	YFR1220P203D	Metal	20K ohms
R186,187	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R188,189	YFR1220P203D	Metal	20K ohms
R190,191	YWR1220P103D	Metal	10K ohms
R192	YWR1220P183D	Metal	18K ohms
R193	YWR1220P470D	Metal	47 ohms
R194	YFR1220P203D	Metal	20K ohms
R195,196	YWR1220P103D	Metal	10K ohms
R197	YFR1220P203D	Metal	20K ohms

REF.NO.	PART NO.	DESCRIPTION	
R198	YWR1220P470D	Metal	47 ohms
R199	YFR1220P203D	Metal	20K ohms
R200,201	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R202,203	YFR1220P203D	Metal	20K ohms
R204	YF2116104JT	Carbon	100K ohms 1/16W
R208	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R209-212	YF2116302GT	Carbon	3K ohms 1/16W
R213	YF2116101JT	Carbon	100 ohms 1/16W
R214	YF2116302GT	Carbon	3K ohms 1/16W
R215	YWR1220P112D	Metal	1.1K ohms
R216,217	YWR1220P102D	Metal	1K ohms
R218	YWR1220P112D	Metal	1.1K ohms
R219,220	YWR1220P102D	Metal	1K ohms
R301	YWR1220P333D	Metal	33K ohms
R302	YF2116101JT	Carbon	100 ohms 1/16W
R303	YF2116621JT	Carbon	620 ohms 1/16W
R304	YWR1220P223D	Metal	22K ohms
R305	YWR1220P473D	Metal	47K ohms
R306	YWR1220P223D	Metal	22K ohms
R307	YWR1220P473D	Metal	47K ohms
R308	YWR1220P333D	Metal	33K ohms
R309	YF2116101JT	Carbon	100 ohms 1/16W
R310	YWR1220P333D	Metal	33K ohms
R311	YF2116101JT	Carbon	100 ohms 1/16W
R312	YF2116621JT	Carbon	620 ohms 1/16W
R313	YWR1220P223D	Metal	22K ohms
R314	YWR1220P473D	Metal	47K ohms
R315	YWR1220P223D	Metal	22K ohms
R316	YWR1220P473D	Metal	47K ohms
R317	YWR1220P333D	Metal	33K ohms
R318	YF2116101JT	Carbon	100 ohms 1/16W
R319	YWR1220P333D	Metal	33K ohms
R320	YF2116101JT	Carbon	100 ohms 1/16W
R321	YF2116621JT	Carbon	620 ohms 1/16W
R322	YWR1220P223D	Metal	22K ohms
R323	YWR1220P473D	Metal	47K ohms
R324	YWR1220P223D	Metal	22K ohms
R325	YWR1220P473D	Metal	47K ohms
R326	YWR1220P333D	Metal	33K ohms
R327	YF2116101JT	Carbon	100 ohms 1/16W
R328	YWR1220P333D	Metal	33K ohms
R329	YF2116101JT	Carbon	100 ohms 1/16W
R330	YF2116621JT	Carbon	620 ohms 1/16W
R331	YWR1220P223D	Metal	22K ohms
R332	YWR1220P473D	Metal	47K ohms
R333	YF2116301JT	Carbon	300 ohms 1/16W
R334	YWR1220P223D	Metal	22K ohms
R335	YWR1220P473D	Metal	47K ohms
R336	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R337	YWR1220P333D	Metal	33K ohms
R338-340	YF2116101JT	Carbon	100 ohms 1/16W
R341	YF2116301JT	Carbon	300 ohms 1/16W
R342	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R343	YF2116104JT	Carbon	100K ohms 1/16W
R344-351	ERJ6GEYJ103	Carbon	10K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R352	YWR1220P202D	Metal	2K ohms
R353	2116150JT	Carbon	15 ohms 1/16W
R401-408	YF2116560JT	Carbon	56 ohms 1/16W
R409-412	YWR1220P561D	Metal	560 ohms
R413,414	YFR1220P203D	Metal	20K ohms
R415-419	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R420,421	ERDS2TJ472	Carbon	4.7K ohms 1/4W
VR1-5	EWAQA1X05C54	Variable Resistor	50K ohms
VR6,7	YFH0621A3R3K	Variable Resistor	3.3K ohms
VR401,402	EWAPFEX05B15	Variable Resistor	100K ohms
C3,6	ECEA0JKS101	Electrolytic	100 µF 6.3V
C9,12	ECEA0JKS101	Electrolytic	100 µF 6.3V
C13,14	ECEA1CSN220	Electrolytic	22 µF 16V
C15	YF400330CHJT	Ceramic	33 pF
C16	YF400104FZT	Ceramic	0.1 µF
C17	YF400330CHJT	Ceramic	33 pF
C18	YF400104FZT	Ceramic	0.1 µF
C19,20	ECEA1CSN220	Electrolytic	22 µF 16V
C21,22	YF400330CHJT	Ceramic	33 pF
C23,24	ECEA1CSN220	Electrolytic	22 µF 16V
C25	YF400330CHJT	Ceramic	33 pF
C26	YF400104FZT	Ceramic	0.1 µF
C27	YF400330CHJT	Ceramic	33 pF
C28	YF400104FZT	Ceramic	0.1 µF
C29,30	ECEA1CSN220	Electrolytic	22 µF 16V
C31,32	YF400330CHJT	Ceramic	33 pF
C33	ECEA1ASN100	Electrolytic	10 µF 10V
C34	YF400220CHJT	Ceramic	22 pF
C36	ECEA1ASN100	Electrolytic	10 µF 10V
C37	YF400220CHJT	Ceramic	22 pF
C39	ECEA1ASN100	Electrolytic	10 µF 10V
C40	YF400220CHJT	Ceramic	22 pF
C42	ECEA1ASN100	Electrolytic	10 µF 10V
C43	YF400220CHJT	Ceramic	22 pF
C45	ECEA1ASN100	Electrolytic	10 µF 10V
C46	YF400220CHJT	Ceramic	22 pF
C48	ECEA1ASN100	Electrolytic	10 µF 10V
C49	YF400220CHJT	Ceramic	22 pF
C51	ECEA1ASN100	Electrolytic	10 µF 10V
C52	YF400220CHJT	Ceramic	22 pF
C54	ECEA1ASN100	Electrolytic	10 µF 10V
C55	YF400220CHJT	Ceramic	22 pF
C57,58	ECEA1EKA470	Electrolytic	47 µF 25V
C59	YF400220CHJT	Ceramic	22 pF
C60	ECEA1AKS220	Electrolytic	22 µF 10V
C61	YF400220CHJT	Ceramic	22 pF
C62	ECEA1AKS220	Electrolytic	22 µF 10V
C63	YF400220CHJT	Ceramic	22 pF
C64	ECEA1AKS220	Electrolytic	22 µF 10V
C65	YF400220CHJT	Ceramic	22 pF

REF.NO.	PART NO.	DESCRIPTION	
C66	ECEA1AKS220	Electrolytic	22 µF 10V
C67	ECEA1ESN4R7	Electrolytic	4.7 µF 25V
C68,69	ECEA1EKA470	Electrolytic	47 µF 25V
C70	ECEA1ASN100	Electrolytic	10 µF 10V
C71	ECEA1AKS220	Electrolytic	22 µF 10V
C72	ECEA1ESN4R7	Electrolytic	4.7 µF 25V
C73	ECEA1ASN100	Electrolytic	10 µF 10V
C74	ECEA1ESN4R7	Electrolytic	4.7 µF 25V
C75,76	ECEA1EKA470	Electrolytic	47 µF 25V
C77	ECEA1ASN100	Electrolytic	10 µF 10V
C78	ECEA1AKS220	Electrolytic	22 µF 10V
C79	ECEA1ESN4R7	Electrolytic	4.7 µF 25V
C80	ECEA1ASN100	Electrolytic	10 µF 10V
C81	ECEA1AKS470	Electrolytic	47 µF 10V
C82,83	YF400104FZT	Ceramic	0.1 µF
C84	ECEA1EKA470	Electrolytic	47 µF 25V
C85-88	ECEA1ASN100	Electrolytic	10 µF 10V
C89	ECEA1AKS100	Electrolytic	10 µF 10V
C90	ECEA1ASN100	Electrolytic	10 µF 10V
C91	YF400101CHJT	Ceramic	100 pF
C92	YF400104FZT	Ceramic	0.1 µF
C93	ECEA1ASN100	Electrolytic	10 µF 10V
C94	YF400680CHJT	Ceramic	68 pFCH
C95	YF400101CHJT	Ceramic	100 pF
C96	YF400104FZT	Ceramic	0.1 µF
C98,99	YF400101CHJT	Ceramic	100 pF
C100	YF400104FZT	Ceramic	0.1 µF
C101,102	YF400101CHJT	Ceramic	100 pF
C103	YF400104FZT	Ceramic	0.1 µF
C104	ECEA1ESN4R7	Electrolytic	4.7 µF 25V
C105,106	ECEA1EKA470	Electrolytic	47 µF 25V
C107	ECEA1ASN100	Electrolytic	10 µF 10V
C108	ECEA1AKS220	Electrolytic	22 µF 10V
C109	ECEA1ESN4R7	Electrolytic	4.7 µF 25V
C110	ECEA1ASN100	Electrolytic	10 µF 10V
C111	YF400220CHJT	Ceramic	22 pF
C112	ECEA1AKS220	Electrolytic	22 µF 10V
C113	YF400220CHJT	Ceramic	22 pF
C114	ECEA1AKS220	Electrolytic	22 µF 10V
C115,116	ECEA1EKS100	Electrolytic	10 µF 25V
C117	YF400332XKT	Ceramic	3300 pF
C119	YW400473XK	Ceramic	0.0047 µF
C120	ECEA1CKS330	Electrolytic	33 µF 16V
C121	YF400101CHJT	Ceramic	100 pF
C122	YF400270CHJT	Ceramic	27 pF
C123	YF400104FZT	Ceramic	0.1 µF
C124,125	ECEA1HKS010	Electrolytic	1 µF 50 V (KS)
C126	ECEA1ASN220	Electrolytic	22 µF 10V
C127	YF400101CHJT	Ceramic	100 pF
C128	YF400270CHJT	Ceramic	27 pF
C129	YF400104FZT	Ceramic	0.1 µF
C130	ECEA1ASN220	Electrolytic	10 µF 10V
C131	YF400101CHJT	Ceramic	100 pF
C132	YF400330CHJT	Ceramic	33 pF
C133	YF400104FZT	Ceramic	0.1 µF

REF.NO.	PART NO.	DESCRIPTION	
C134	ECEA1ASN100	Electrolytic	10 µF 10V
C135	YF400101CHJT	Ceramic	100 pF
C136	YF400330CHJT	Ceramic	33 pF
C137	YF400104FZT	Ceramic	0.1 µF
C138	ECEA1ASN100	Electrolytic	10 µF 10V
C139	YF400220CHJT	Ceramic	22 pF
C140,141	YF400104FZT	Ceramic	0.1 µF
C142	ECEA1AKS221	Electrolytic	220 µF 10V
C143	YF400220CHJT	Ceramic	22 pF
C144	ECEA1AKS221	Electrolytic	220 µF 10V
C145	YF400220CHJT	Ceramic	22 pF
C146	YF400104FZT	Ceramic	0.1 µF
C147	ECEA1AKS221	Electrolytic	220 µF 10V
C148	YF400220CHJT	Ceramic	22 pF
C149	ECEA1AKS221	Electrolytic	220 µF 10V
C150	ECEA1ASN100	Electrolytic	10 µF 10V
C151	YF400820CHJT	Ceramic	82 pF
C152	YF400104FZT	Ceramic	0.1 µF
C153,154	ECEA1ASN100	Electrolytic	10 µF 10V
C155	YF400820CHJT	Ceramic	82 pF
C156	YF400104FZT	Ceramic	0.1 µF
C157	ECEA1ASN100	Electrolytic	10 µF 10V
C158	ECEA1EKS330	Electrolytic	33 µF 25V
C159,160	ECEA1EKA470	Electrolytic	47 µF 25V
C161-163	YF400101CHJT	Ceramic	100 pF
C164,165	YF400104FZT	Ceramic	0.1 µF
C166	ECEA1AKS470	Electrolytic	47 µF 10V
C167	YF400104FZT	Ceramic	0.1 µF
C168	ECEA1AKS470	Electrolytic	47 µF 10V
C169,170	YF400220CHJT	Ceramic	22 pF
C172,173	YF400220CHJT	Ceramic	22 pF
C175,176	YF400104FZT	Ceramic	0.1 µF
C177,178	ECEA1AKS100	Electrolytic	10 µF 10V
C179,180	ECEA1EKA470	Electrolytic	47 µF 25V
C181	YF400220CHJT	Ceramic	22 pF
C183-185	ECEA0JKS331	Electrolytic	330 µF 6.3V
C186-189	ECEA1EKA470	Electrolytic	47 µF 25V
C190,191	YF400104FZT	Ceramic	0.1 µF
C192	ECEA1EKA470	Electrolytic	47 µF 25V
C301,302	ECEA1CKN330	Electrolytic	33 µF 16V
C303	ECEA1EKA470	Electrolytic	47 µF 25V
C304-309	ECEA1CKN330	Electrolytic	33 µF 16V
C310	ECEA1EKA470	Electrolytic	47 µF 25V
C311	ECEA1EKS101	Electrolytic	100 µF 25V
C312-317	ECEA1EKA470	Electrolytic	47 µF 25V
C318,319	ECEA1AKS220	Electrolytic	22 µF 10V
C320	ECEA1ASN100	Electrolytic	10 µF 10V
C321-325	ECEA1EKA470	Electrolytic	47 µF 25V
C326	ECEA1AKS470	Electrolytic	47 µF 10V
C327	YF400101CHJT	Ceramic	100 pF
C328,329	ECEA1EKA470	Electrolytic	47 µF 25V
C330,331	ECEA1AKS470	Electrolytic	47 µF 10V
C332-337	ECEA1EKA470	Electrolytic	47 µF 25V
C338,339	ECEA1CSN100	Electrolytic	10 µF 16V
C340,341	ECEA1EKA470	Electrolytic	47 µF 25V

REF.NO.	PART NO.	DESCRIPTION	
C401	ECEA1EKS330	Electrolytic	33 µF 25V
C402	ECEA1EKS101	Electrolytic	100 µF 25V
C403,404	YF400101CHJT	Ceramic	100 pF
L1,2	ELESE101KA	Coil	100 µH
L5-7	ELESE101KA	Coil	100 µH
SW401-408	EVQQTU05R	Push Switch	
CN1	YWF795P040LA	40-pin Connector	
CN2	YW530151210	12-pin Connector	
CN4	YWF795P034LA	34-pin Connector	
CN5	YW530150410	4-pin Connector	

DIGITAL-SUB BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB13	YWJRYMX50P1A	Printed Board	
IC1	YWMC74HC74F	IC	
IC2	YWMC74HC393F	IC	
IC3	YWMC74HC04F	IC	
IC4	YWMC74HC20F	IC	
R1	ERJ6GEYJ102	Carbon	1K ohms 1/16W
R2	ERJ6GEYJ202	Carbon	2K ohms 1/16W
R3	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R4	ERJ6GEYJ0R00	Carbon	0 ohms 1/16W
C1	YF400101CHJT	Ceramic	100 pF
C2	YF400330CHJT	Ceramic	33 pF
C3,4	YWT316B104MT	Ceramic	0.1 µF
C5	YF400101CHJT	Ceramic	100 pF

ACCESSORY PARTS/PACKAGING PARTS

REF.NO.	PART NO.	DESCRIPTION
M71	YWV8QA2776AN	Operating Instructions
M72	XZB26X40C05	Polyethylene Bag
M73	XZB55X71C1	Polyethylene Bag
M74	YWV7SA1655A3	Label
M75	YWV9CA1806AN	Packaging Assy

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